STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Illinois Power Company	**)**	
	)	**Docket 04-0476**
Proposed general increase in natural gas	**)**	
rates (Tariffs filed June 25, 2004)	**)**	

ILLINOIS POWER COMPANY'S REPLY BRIEF

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I. INTRODUCTION

Illinois Power Company ("AmerenIP", "Illinois Power", "IP" or the "Company") submits this Reply Brief in response to the initial briefs of the Citizens Utility Board ("CUB"), the Illinois Industrial Energy Consumers ("IIEC"), Business Energy and Alliance Resources, LLC ("BEAR") and the Staff of the Commission.[1]

II. RATE BASE – HILLSBORO STORAGE FIELD ISSUES

A. Hillsboro Base Gas Inventory Adjustment[2]

1. Staff's Belated "Prudence" Argument Should Be Rejected

As Illinois Power and Staff agree, over the period 1993-1999 an injection metering error occurred at IP's Hillsboro Storage Field, which resulted in a depletion of the base gas (and working gas) inventory at this Field. (See, e.g., Staff Init. Br., p. 6; Staff Ex. 7.0, p. 9) IP replaced the depleted base gas inventory, resulting in an increase to the base gas inventory amount over the amount included in rate base in IP's last gas rate order, Docket 93-0183 (1994). (See IP Init. Br., p. 11) In his direct and rebuttal testimonies, Staff witness Lounsberry recommended that the Commission should not accept IP's base gas inventory amount for Hillsboro, but rather should include in rate base only the base gas inventory amount for Hillsboro

[1] An initial brief was also filed by Dynegy Inc. ("Dynegy") on the Hillsboro Storage Field issues; however, Dynegy opposed the Hillsboro-related disallowances proposed by Staff witness Lounsberry, as does IP. The other two parties that were active in the case, the Attorney General on behalf of the People of the State of Illinois ("AG") and Constellation NewEnergy, LLC – Gas Division, did not submit initial briefs.

[2] CUB filed an Initial Brief in which it stated that it concurs in Staff's proposed Hillsboro used and useful adjustment. (CUB Init. Br., pp. 3-4) CUB presented no evidence on any of the Hillsboro issues. (In fact, AG/CUB witness Effron, who presented the AG and CUB's proposed rate base and revenue requirement, did not include either of the Hillsboro adjustments in his calculations. (See AG/CUB Ex. 1.0. 1.1, 1.3, 1.4)) CUB's brief does not provide any additional substantive argument in support of the Hillsboro used and useful adjustment beyond those made by Staff. Therefore this Rely Brief will not separately address CUB's position on this issue.

that was included in IP's last gas rate order.[3] Mr. Lounsberry's **only** stated basis for his position was that he did not think IP's calculation of the amount of the inventory depletion was accurate enough to use in setting rates, as shown by these excerpts from his testimony:

Staff Witness Lounsberry's Direct Testimony

Q. Do you agree with the changes that IP proposed?

A. No. *I do not consider IP's calculation to be accurate enough to base a recalculation of the non-current gas amounts.* Instead, I recommend that the value the Company used prior to it making any corrections to Hillsboro base gas inventory be used. . . . (Staff Ex. 7.0, p. 8; emphasis supplied)

Q. Are you disagreeing that there was a measurement error at Hillsboro?

A. No. *I am taking issue with IP's claim of being able to accurately determine the volume of the measurement error*. (*Id*., p. 9, emphasis supplied; see also *Id*., pp. 16, 19)

Staff Witness Lounsberry's Rebuttal Testimony

Q. What did you recommend to the Commission in your direct testimony regarding IP's request to increase the value of its recoverable base gas inventory at the Hillsboro storage field by $10,367,838 for the test year?

A. I recommended the Commission reject IP's request and instead recommended that the Commission direct the Company to use Hillsboro's recoverable base gas value that the Company used prior to it making any corrections to Hillsboro base gas inventory. . . . (Staff Ex. 17.0R, p. 4)

Q. Why did you recommend the Commission reject IP's request to increase the recoverable base gas value for its Hillsboro storage field during the test year?

A. IP's adjustment is premised on its hindsight determination that gas measurement errors during the period November 1993 through October 1999 caused it to withdraw recoverable base gas (gas not normally expected to be withdrawn from a storage field before it is retired) from the

[3]Other than Scott Struck, who presented Staff's proposed revenue requirement taking into account all adjustments proposed by Staff including the revenue requirement impact of Mr. Lounsberry's proposed Hillsboro used and useful adjustment, Mr. Lounsberry was the only Staff witness who presented any evidence relating to the Hillsboro issues.

Hillsboro storage field. Based on the amount of recoverable base gas that IP contends was withdrawn from the Hillsboro storage field (based on its estimate of the gas measurement errors), IP estimates that the value of its base gas inventory for the test year increased by $10,367,838 to reflect the higher price of gas that IP placed in the field to replace the volume of lower priced recoverable base gas that it estimates was withdrawn. *I recommended that the Commission reject IP's request because its estimate of the gas measurement error experienced during the period November 1993 through October 1999 was not accurate enough to base a recalculation of the non-current gas (recoverable bas gas) amounts. . . .* (*Id*., p. 5; emphasis supplied)

Q. Did IP's rebuttal testimony persuade you to alter or amend your recommendation to deny IP's request to increase the value of its recoverable base gas inventory at the Hillsboro storage field by $10,367,838?

A. No. As explained below, *the Company's estimate of the monthly gas measurement errors remains unreliable and does not provide a reasonable or sufficient basis to increase the value of the base gas inventory at the Hillsboro storage field*. (*Id*., pp. 6-7; emphasis supplied)

Q. Based upon the above discussion of your seven concerns, do you continue to recommend that the Commission reject IP's request?

A. Yes. For the reasons articulated earlier in my testimony, *I continue to find the Company's data to be insufficient for purposes of calculating a revised recoverable base gas value for the Hillsboro storage field.* I recommend that the Commission direct the Company to use Hillsboro's recoverable base gas value that the Company used prior to making any corrections to Hillsboro base gas inventory. (*Id*., pp. 23-24; emphasis supplied)

The *only* reason testified to by Staff witness Lounsberry for recommending that IP's Hillsboro base gas inventory amount not be adopted was that he did not agree that the base inventory amount determined by the Company was sufficiently accurate. *Nowhere* in his testimony did he contend that IP's base gas inventory amount should be disallowed because it resulted from imprudent management by Illinois Power. In Staff's Initial Brief, however, for the *first time* in this case, Staff contends that IP's Hillsboro base gas inventory amount should be

disallowed because it resulted from imprudent management actions. (Staff Init. Br., p. 5) This belated and untimely argument should be rejected by the Commission.

Moreover, the evidence on which Staff now relies in support of its "prudence" argument (see Staff Init. Br., pp. 21-22) was not presented in Staff witness Lounsberry's testimony in support of a prudence argument (as noted above, he made no such argument), but rather in support of his proposed used and useful adjustment for the Hillsboro Field. The evidence relied on by Staff was presented by Staff witness Lounsberry in subsections of his direct and rebuttal testimonies captioned "Overall Storage Concerns". A simple examination of the Table of Contents to both Mr. Lounsberry's direct and rebuttal testimonies (Staff Exs. 7.0 and 17.0R) shows that his "Overall Storage Concerns" – including the specific "Overall Storage Concerns" now contended by Staff to show imprudence[4] -- were presented as part of the basis for his proposed used and useful adjustment. In fact, Mr. Lounsberry stated as much at the start of the "Overall Storage Concerns" subsection of his direct testimony:

> Q. Do you have any other information for the Commission to consider that would support a used and useful adjustment at the Hillsboro storage field?
>
> A. Yes. I have several overall concerns regarding the manner that IP has operated its natural gas storage fields. I consider these concerns relevant to the used and useful discussion because IP has the responsibility to maintain the capabilities of its storage facilities. The information I discuss below indicates that IP has failed that responsibility. As such, I believe this information is relevant to the used and useful discussion. (Staff Ex. 7.0, p. 31)

Similarly, in his first answer in the "Overall Storage Concerns" subsection of his rebuttal testimony, Staff witness Lounsberry reiterated that his "Overall Storage Concerns" related to his proposed used and useful adjustment:

[4]These are the subsections of "Overall Storage Concerns" captioned "Hillsboro Storage Field Metering", "Hillsboro Metering Review" and "Gas Dispatch Tracking".

> My direct testimony mentioned several overall concerns regarding the manner that IP has operated its natural gas storage fields. I consider these concerns relevant to the used and useful discussion because IP has the responsibility to maintain the capabilities of its storage facilities. (Staff Ex. 17.0R, p. 35)

Further, at the end of the "Overall Storage Concerns" subsections of both his direct and rebuttal testimonies, Staff witness Lounsberry made the same concluding statement with regard to the impact of his "Overall Storage Concerns": "Therefore, IP should be held accountable for its actions, or lack thereof, and the Hillsboro storage field should be found to be only 53.44 percent used and useful in this proceeding." (Staff Ex. 7.0, p. 54; Staff Ex. 17.0R, p. 51)

The Commission should not countenance this sort of sandbagging, particularly from its own Staff. Although in a case before the Commission there may be purely legal issues (e.g., issues of statutory construction) that are not appropriate for substantive discussion in witness testimony, a proposed prudence disallowance is not such an issue. As discussed in Section II.A.2 below, determination of a prudence issue requires analysis of management decisions and actions relating to the event in question based on the information available at the time the decisions and actions occurred, and therefore is specifically fact based. Moreover, Illinois Power cannot respond to disallowance theories that are not articulated in other parties' testimony.[5]

Staff might argue that the utility ultimately has the burden to show the prudence of its costs in a rate case. However, such an argument would ignore the sequence of presentation of evidence and arguments in a rate case. The utility makes its *prima facie* case in a rate case by presenting its cost of service. The burden then shifts to other parties to demonstrate that the utility's costs are unreasonable and should not be included in setting rates. If Staff or intervenors raise issues about specific components of the utility's costs, the burden shifts back to the utility

[5]Lest this be construed as a complaint against all of Staff, it is not. Every other Staff witness who recommended an adjustment or disallowance to IP's revenue requirement clearly set forth his or her proposal and the basis for it in his/her testimony.

to refute those issues and demonstrate that those costs are reasonable and prudent in light of the specific issues raised. (See, e.g., *City of Chicago v. Commerce Commission*, 133 Ill. App. 3d 435, 442 (1st Dist. 1985)) In this case, IP responded in detail, with the rebuttal and surrebuttal testimonies of three witnesses and witness panels, to Mr. Lounsberry's articulated proposal to disallow IP's Hillsboro base gas inventory amount on the grounds (in his view) that the base inventory amount is not sufficiently accurate or reliable.[6] Again, however, the utility cannot present evidence and arguments in response to issues about its costs that Staff and intervenors do not raise in their testimonies.

Finally, Staff witness Lounsberry's view of the prudence of the same basic underlying set of events relating to the Hillsboro Storage Field has been inconsistent. As he pointed out in his direct testimony, he previously raised many of the same "Overall Storage Concerns" in his testimony in Docket 01-0701, IP's Purchase Gas Adjustment ("PGA") reconciliation for 2001.[7] (Staff Ex. 7.0, p. 31) What he does not mention is that in that case he presented these issues in support of a prudence disallowance, but the Administrative Law Judge and the Commission rejected his position and concluded that "IP acted reasonably and prudently with regard to its decision" that was the subject of Mr. Lounsberry's proposed disallowance.[8] (Order in Docket

[6]IP also responded with detailed evidence to Mr. Lounsberry's articulated proposal for a used and useful adjustment with respect to Hillsboro.

[7]In fact, as shown by numerous citation references in Mr. Lounsberry's direct testimony here to IP data request responses in Docket 00-0714, IP's 2000 PGA case, many of the underlying facts on which Mr. Lounsberry bases his "Overall Storage Concerns" were identified in that case (see, e.g., Staff Ex. 7.0, pp. 34, 35, 36, 39, 41, 42, 43, 44). However, Mr. Lounsberry did not propose a prudence disallowance based on any of his "Overall Storage Concerns" in Docket 00-0714.

[8]With respect to Mr. Lounsberry's "Overall Storage Concerns", the Commission's specific direction to him in Docket 01-0701 was: "While appreciative of Staff's efforts in compiling these observations about IP's storage field operations, the Commission is unsure how Staff would have the Commission respond. If Staff believes that IP's operations warrant investigation, then the Commission suggests that Staff prepare a report recommending a management audit of IP's gas

01-0701 (Feb. 19, 2004), p. 25) In IP's next PGA case, for 2002 (Docket 02-0721), Mr. Lounsberry advocated no prudence disallowance:

> Staff witness Lounsberry also testified that Staff reviewed IP's filing and responses to numerous data requests concerning the prudence of IP's gas purchases during the reconciliation period. He indicated that Staff found no reason to dispute IP's assertion that all its gas supply purchases during that period were prudently incurred. (Order in Docket 02-0721 (July 21, 2004), p. 7)

Yet, in this case, just a few months later, Staff has again raised the same basic set of "Overall Storage Concerns", in support of, per Staff's Brief, a prudence disallowance.

In summary, the Commission can and should reject Staff's "prudence" argument because it was not articulated in Mr. Lounsberry's direct or rebuttal testimonies, but rather has been raised for the first time in Staff's brief, thereby depriving Illinois Power of the opportunity to respond to Staff's arguments and evidence in the context of a claim that IP's actions and decisions were imprudent.

2. Illinois Power's Actions and Decisions Relating to the Hillsboro Injection Metering Error and Deliverability Decline Were Prudent

Fortunately, despite Staff's belated revelation of its prudence argument, the record contains ample evidence to demonstrate that IP's decisions and actions with respect to the Hillsboro deliverability decline (which resulted from the inventory depletion caused by the

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storage operations, pursuant to Section 8-102 of the Act." (Order in Docket 01-0701, p. 24) Mr. Lounsberry has not done this, but he did raise the same set of concerns in Docket 04-0294, the proceeding for approval of IP's acquisition by Ameren Corporation. In that case, in response, Ameren and IP agreed with Staff to a collaborative process of review and progress reporting, including to the Energy Division, of AmerenIP's integration plans, storage field and other gas department operations, staffing and capital expenditures, as its storage field and other gas operations are integrated into those of the other Ameren utilities. (See Conditions of Approval 25, 35, 37 and 39 in Appendix A to the September 22, 2004, Order in Docket 04-0294) In light of the seemingly good faith resolution of Mr. Lounsberry's concerns in Docket 04-0294, it is dispiriting to see them raised yet again by Mr. Lounsberry in this docket.

injection metering error) were prudent. Most of this evidence was never even responded to by Mr. Lounsberry.

a. The Standard for Prudence

The starting point is the well-recognized standard for prudence, which this Commission has adopted:

> Prudence is that standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time decisions had to be made. In determining whether a judgment was prudently made, only those facts available at the time judgment was exercised can be considered. Hindsight review is impermissible.
>
> Imprudence cannot be sustained by substituting one's judgment for that of another. The prudence standard recognizes that reasonable persons can have honest differences of opinion without the one or the other necessarily being "imprudent." (*Illinois Commerce Commission v. Commonwealth Edison Co.*, Docket 84-0395 (Oct. 7, 1987), p. 17)

This standard has been confirmed by the Illinois courts. See, e.g., *Illinois Power Co. v. Commerce Commission*, 245 Ill. App. 3d 367, 371 (3d Dist. 1993) (reversing a Commission finding of imprudence); *Illinois Power Co. v. Commerce Commission*, 339 Ill. App. 3d 425, 428, 435 (5th Dist. 2003) (reversing a Commission finding of imprudence that was based on Mr. Lounsberry's recommendation).

The Commission has also recognized that, when humans are involved, errors are reasonable to expect. (Order in Docket 84-0395, p. 19.) See also *Business & Professional People for the Public Interest v. Commerce Commission*, 279 Ill. App. 3d 824, 833 (1st Dist 1996) ("a small amount of human error is an unavoidable cost of any human endeavor").

As the Commission stated only twelve months ago in the last IP case in which Mr. Lounsberry recommended a prudence disallowance for IP, supported in part by the "Overall Storage Concerns" Staff relies on in this case[9]:

> As indicated above, the Commission has previously defined prudence as the standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time decisions had to be made. (Order in Docket 01-0701, p. 22)
>
> . . . This is not to say, however, that the circumstances identified by Staff and listed in [IP's] Shanghai Report could not have been perceived by some at the time of their occurrence as warnings of potential problems in the future. The question, though, is whether in light of *all* of the circumstances at Shanghai, was IP imprudent in its failure to realize that Shanghai's deliverability may be impaired in the future. (*Id*., p. 23; emphasis in original)
>
> . . . Admittedly, IP's perception of Shanghai's performance was obscured by an error in computer settings which affected the meters at Shanghai. As result of this error, IP withdrew 743,313 Mcf of gas above what its meters reflected from 1995 to 1999. Although this mistake was certainly avoidable, its detection was hampered by the results of an earlier well casing leak. IP acknowledges the error but argues that it cannot be expected to be perfect. The Commission agrees. The potential for human error is inherent in all human endeavors. Data input is obviously no exception. (*Id*., p. 23)
>
> . . . In light of the foregoing, the Commission is persuaded by IP that IP acted reasonably and prudently with regard to its decision to reduce the peak day deliverability of Shanghai by 25,000 Mcf/d for purposes of its 2001 PGA reconciliation. While certain errors occurred and hindsight shows that some of IP's observations and beliefs were incorrect, a natural gas storage aquifer is a complex physical system and the Commission finds that under the circumstances IP's actions with respect to Shanghai were not imprudent. (*Id*., p. 25)

[9]As the Commission will recall, in a previous case, Docket 00-0714, the Commission adopted Mr. Lounsberry's recommendation to impose a prudence disallowance with respect to IP's gas operations, but then was reversed by the Appellate Court on the grounds that in accepting Mr. Lounsberry's recommendation, the Commission engaged in hindsight review, applied a standard of care it determined "after the fact" to the relevant IP decisions and actions, and applied different standards than it had applied to essentially the same IP actions in earlier cases. *Illinois Power Co. v. Commerce Commission*, 339 Ill. App. 3d 425 (5th Dist. 2003).

b. Illinois Power Aggressively Pursued the Cause of the Hillsboro Deliverability Decline

Staff's prudence argument focuses on several specific assertions with respect to one of the *withdrawal* meters at Hillsboro. Staff's specific assertions about the withdrawal metering are inaccurate or misplaced (as was discussed in IP's Initial Brief and will be discussed in Section II.A.2.c, below). Moreover, the issues raised by Staff concerning the withdrawal metering had nothing to do with the cause, identification and correction of the *injection* metering error, which was the actual cause of the Hillsboro inventory depletion. More generally, at the time the injection metering error was occurring, its manifestation was a decline in the deliverability performance of the Hillsboro Field – this was the problem IP was facing at the time the decisions and actions in question were being made and taken. Thus, if there is to be a prudence issue in this case, what must be evaluated is the prudence of IP's efforts to identify and correct the deliverability decline that IP was facing subsequent to the 1993 expansion of the Hillsboro Field, not just IP's specific actions with regard to the metering error (which is the focus of Staff's prudence argument). Only in hindsight was it known that the cause of the Hillsboro deliverability decline (and thus of the inventory depletion) was a turbine injection metering error.

As summarized below, the record in this case demonstrates that Illinois Power acted aggressively and proactively, and expended considerable resources, in attempting to identify and resolve the causes of the Hillsboro Storage Field deliverability decline. These efforts resulted in the identification and correction of the injection metering measurement error that was the cause of the Hillsboro inventory depletion and thus of the Field's performance decline. Illinois Power witnesses Timothy Hower and the panel of Wayne Hood and Curtis Kemppainen presented testimony describing IP's efforts to identify and resolve the causes of the Hillsboro deliverability

problems.[10] Mr. Kemppainen and Mr. Hower were directly involved in IP's efforts to identify the causes of the Hillsboro deliverability decline. Their discussions of the history of the efforts to eliminate the Hillsboro deliverability problems bring a real-time perspective to the record that is not provided by Mr. Lounsberry's hindsight assessments.

i. Illinois Power's Identification of a Potential Deliverability Problem at Hillsboro

The Hillsboro Storage Field has been in operation since 1972; however, it was substantially expanded in the early 1990s. As a result of the expansion, which was completed in 1993, the peak day deliverability of the Field was increased to 125,000 mcf/day and its expected working gas volume was increased to 7.6 bcf. (Rev. IP Ex. 14.1, p. 4) Initially, the expanded Field performed as expected – in each of 1993-1994 through 1996-1997 heating seasons, Hillsboro tested at a peak day deliverability value of 125,000 mcf/day or greater; and for the 1993-1994 winter, approximately 7.6 bcf of gas was withdrawn for delivery to customers. In winters subsequent to 1993-1994, however, the amounts of gas withdrawn from the Field for delivery to customers declined, from 5.95 bcf in 1994-1995 to 4.1 bcf in 1998-1999. (*Id*., p. 5)

Based on several years of declining annual deliverability, IP first observed that there could be a potential problem with the Hillsboro Field following the 1995-1996 winter withdrawal season (i.e., after the third year of operation of the expanded Field). (Rev. IP Ex. 14.1, p. 5) As Mr. Hood and Mr. Kemppainen explained, a low amount of gas withdrawals in a single inject-withdraw cycle would not necessarily lead one to suspect a problem, since exogenous factors such as weather and other load constraints could impact the volume of gas cycled in a given year. In fact, at least one of the early years was warmer than normal, meaning

[10]The credentials of Mr. Hower, President of Malkewicz Hueni Associates ("MHA"), an international geology and engineering consulting firm, were summarized at page 14 of IP's Initial Brief.

that withdrawing less than 7.6 bcf in the winter season would not be unusual. Observation of reduced or declining deliverability over several years would be necessary for the storage field operator (i.e., IP) to suspect that there could be a physical or operating problem that was reducing deliverability. (*Id.*, pp. 5-6) Mr. Lounsberry did not fault IP for not recognizing and commencing its investigation of the Hillsboro deliverability decline sooner than 1996.

ii. IP's Investigation of a Potential Structural Cause for the Hillsboro Deliverability Decline

Illinois Power initially focused its investigation on whether there was a reservoir problem with the Hillsboro Storage Field, that is, whether either (i) gas injected into the Field was migrating from the underground structure, or (ii) the shape of the underground structure was different than what had been expected. The result in either situation would be that gas injected into the Field was moving or being pushed to areas where it could not be reached by the withdrawal wells. (Rev. IP Ex. 14.1, p. 6) Mr. Lounsberry did not fault IP for initially focusing on a possible reservoir problem as the source of Hillsboro's declining deliverability. To investigate this possibility, IP had a vertical seismic profile of the Field prepared by outside consultants. Based on this analysis, which concluded that a three-dimensional ("3-D") seismic profile would be a viable means to define the structure of the Field, an external consultant was retained to conduct a 3-D study.[11] The preliminary results of the 3-D seismic study, conducted in 1998, indicated that approximately 3.5 bcf of gas had migrated to another underground structure to the northeast of the Hillsboro Field. (*Id.*, p. 7; IP Ex. 12.5)

[11] A 3-D seismic profile is developed by measuring the travel times of sound waves propagated through the sub-surface; the signals reflect off the underground rock formations and bounce back to the surface where they are recorded. The reservoir structure is thereby identified in a 3-D image because the travel time of the reflected signal from structurally high locations is shorter than in areas where the reservoir is deeper or farther below the surface. (IP Ex. 17.1, p. 8)

Based on the results of the 3-D seismic analysis of the Hillsboro Field, Illinois Power drilled a new well to the northeast of the Field where the 3-D analysis indicated a sub-structure, or second geological structure, existed to which gas had migrated from the main reservoir. The new well was drilled to confirm the existence of the second geological structure and to access the gas believed to be in the second structure in order to restore deliverability to the Field. Upon completion of this well, however, in 2000, it was discovered that there was not in fact a separate sub-structure in that area. (Rev. IP Ex. 14.1, pp. 11-12) Mr. Lounsberry did not fault IP for drilling this new well in an effort to locate the indicated off-Field substructure.[12]

After drilling the new well, Illinois Power conducted a number of additional studies and investigations to determine if there was a structural cause for declining deliverability of the Hillsboro Field. In June 2001, IP had an outside consultant perform a crosswell seismic survey involving four wells at Hillsboro. A crosswell seismic survey is a high resolution process capable of resolving features much smaller than those visible with 3-D surface seismic analysis. This analysis helped to confirm that there was not in fact an additional geologic structure to the northeast of the existing underground structure. (Rev. IP Ex. 14.1, pp. 12-13)

Additionally, over the period from November 2000 through November 2002, IP performed well stimulation treatments on a total of six wells at the Hillsboro Field. Well stimulation treatments consist of injecting chemicals into a well bore, and thus into the underground reservoir, in an effort to clean up any barriers near the well bore that may be restricting injection or withdrawal of gas. These restrictions can be caused by such things as

[12]In fact, the well drilled in 2000 (which IP is using as an observation well) was presented for inclusion in rate base as a major capital project completed since IP's last gas rate case and, after a correction to its recorded cost data to remove certain costs that should have been expensed, it is being included in rate base in this case, without objection. (See Rev. IP Ex. 6.2, p. 6; IP Ex. 12.1, pp. 4-5; IP Ex. 12.5; Staff Ex. 7.0, p. 54; Staff Ex. 17.0R, p. 2)

drilling, casing, cementing operations, perforating, solids invasion, scale, fines migration, emulsions or bacteria. Well stimulation treatments use acids, surfactants and other proprietary chemicals to remove the barriers or restrictions in the underground formation and restore the productivity of the well. (Rev. IP Ex. 14.1, pp. 13-14)

Illinois Power also performed additional neutron log analyses, which are surveys conducted inside a gas well that can determine the water-gas mix within the reservoir by measuring the hydrogen ion concentration. The neutron logs were analyzed to determine if there was leakage from the reservoir to a shallower formation, but they did not indicate any leakage was occurring from the formation. Additionally, information from the neutron logs on the thickness of the gas bubble in the Hillsboro reservoir was compared to similar information from neutron logs conducted in previous years; this comparison indicated that the gas bubble in the reservoir was thinning. (Rev. IP Ex. 14.1, p. 14; IP Ex. 17.1, p. 8) IP also conducted flame ionization surveys, which are tests conducted at ground levels to identify any migration of gas at the surface that would not be detected through the neutron logs. These surveys detected no identifiable gas leakage at the surface. (Rev. IP Ex. 14.1, p. 14) Further, IP performed analyses to determine if gas being withdrawn was actually recirculating through the plant equipment and back in to the Field. It was determined that this was not occurring. (*Id*., p. 15)

IP also conducted analyses of water levels and water production at Hillsboro's observation wells over time. These analyses indicated that the volume of gas in the reservoir was decreasing. However, these analyses also showed that the working gas volumes in the reservoir had declined to below the 3.6 bcf working gas volume of the Field prior to the 1993 expansion. This observation indicated that the source of the deliverability decline was not structural, because if the cause of the problem were structural, the working gas volumes would

have stabilized at the pre-expansion levels of 3.6 bcf. (*Id*., p. 15) Finally, a volumetric analysis was conducted, using data on the volume of the reservoir and gas saturation data from the reservoir to develop an estimate of gas volumes actually in the reservoir at different points in time. A comparison of the gas volumes in the Field in the spring of 1993 and in the spring of 2002, in each case calculated using this method, showed that there was approximately 5.5 bcf less gas in the Field in the spring of 2002 than in the spring of 1993. (*Id*., pp. 15-16)

In summary, Illinois Power conducted numerous separate studies and analyses, and pursued a number of different possibilities, in attempting to determine if the cause of the Hillsboro deliverability decline was a structural problem with the recently-expanded reservoir and if so, what the specific problem was. This was certainly a logical and plausible area of investigation to pursue given that Hillsboro had undergone a significant expansion in 1993 but after that expansion was not performing as anticipated. Further, IP expended considerable internal and external resources on these investigations and analyses.[13] Mr. Lounsberry did not contend that any of these analyses were unnecessary, inappropriate or ill-advised or that focusing on a possible structural or geological problem as the cause of the declining performance of the recently-expanded Field was not prudent or appropriate. IP's investigations and analyses into whether there was a potential structural problem led to the ultimate conclusions that (i) the volume of gas in the Hillsboro reservoir had declined significantly since 1993, but (ii) the cause of the volume decline was not a structural problem or other physical problem (e.g., leakage through plant equipment, through the surface or into another underground formation).

[13]For example, the cost to drill the new well at Hillsboro was $1,036,000. (IP Ex. 12.5) The costs of many of the other studies and analyses described above would have been expensed as Operations and Maintenance ("O&M") expense, rather than capitalized for later inclusion in rate base. In light of some of Mr. Lounsberry's other comments elsewhere in his testimony and in Staff's Initial Brief, IP emphasizes that the additional O&M expenses that IP incurred for these studies and analyses could *not* be recovered from customers through the PGA.

iii. IP's Investigation of a Possible Metering Cause for the Hillsboro Deliverability Decline

Contemporaneous with investigating whether there was a structural cause for the Hillsboro deliverability decline, Illinois Power also separately investigated whether there could be a metering problem. In 1999, while still investigating possible structural causes (and planning to drill the additional well to access the additional reservoir formation believed to exist to the northeast of the Field), IP retained an outside engineering consulting firm, Peterson Engineering, to conduct an audit of the metering at Hillsboro. (Rev. IP Ex. 14.1, pp. 7-8) Peterson Engineering's report, issued in December 1999, identified two metering problems.

First, two new turbine injection meters that had been installed at Hillsboro were over-registering gas injections under certain operating conditions due to the operation of compressors that were located nearby.[14] When the compressors were operating at approximately 50% loadings, they caused the turbine meters to over-spin, thereby recording a greater amount of gas as injected into the Field than was in fact passing through the meters. The turbine meter over-registration was determined to be 26% when the compressors were operating at 50% loadings, while the over-registration was minimal when the compressors were operated at close to full loadings. (Rev. IP Ex. 14.1, p. 8)

Second, it was discovered that the orifice opening on one of the plant withdrawal meters was smaller than the value that had been stamped on the equipment at the manufacturer's plant. The orifice opening value stamped on the equipment was the opening size that IP had ordered, but the size of the opening was actually smaller than the value stamped on the orifice plate. This meant that less gas was being withdrawn from the Field than had been believed, because the size

[14]The turbine meters were the main plant meters by which gas coming into the Hillsboro Field for injection was measured.

of the orifice opening is a value that is input into the meter's programmable logic controller that calculates the value of gas being withdrawn through the meter. (Rev. IP Ex. 14.1, pp. 8-9) The meter in question was on the "secondary" withdrawal run into the south pipeline from the Hillsboro Field. The principal gas withdrawal facility into the south outbound pipeline is the "primary" run.[15] The secondary run only operates occasionally, during periods of high withdrawal flow rates. (*Id.*)

To correct the turbine injection metering measurement errors, Illinois Power implemented operating procedures to avoid the 25% and 50% compressor loading levels, since these were the compressor loading levels that caused the most significant over-registration on the turbine meters. Additionally, the static pressure sensing point for the turbine meters was relocated in order to improve their accuracy. Both of these actions were recommended in the Peterson Engineering report. These steps were implemented in May 2000 (i.e., early in the injection season for the 2000-2001 winter). (Rev. IP Ex. 14.1, p. 10) Thus, by early 2000, the turbine injection metering problem, which was ultimately determined to have been the cause of the Hillsboro deliverability declines and the gas inventory depletion, had been corrected.

To correct the problem of the incorrect opening size on the orifice meter, the correct value for the orifice opening was input into the programmable logic controller so that it would correctly calculate the amount of gas being withdrawn through the meter. (Rev. IP Ex. 14.1, pp. 10-11) The withdrawal plates on all of the Hillsboro orifice meters were inspected, were determined to still be service-worthy, and were re-installed. (*Id.*, p. 35)

[15]There is also a north withdrawal pipeline with primary and secondary runs that are metered by orifice meters. Thus, as Mr. Lounsberry noted, there are a total of four withdrawal runs at Hillsboro metered by orifice meters. (Staff Ex. 7.0, p. 10) It was one of these four meters that had the incorrectly-labeled orifice opening.

At the time of the Peterson Engineering review, the injection metering error at the turbine meters and the withdrawal metering error on the south pipeline secondary withdrawal meter were treated as offsetting. The amount of the measurement error at the withdrawal meter could be calculated with great accuracy, because the amount of the error was simply a function of the difference between the correct and incorrect opening sizes. (Rev. IP Ex. 14.1, p. 11) That is, knowing the correct size of the orifice opening versus the incorrect size that had been used in the programmable logic controller, the actual volume of gas that had passed through this meter over time could be calculated. In contrast, at this time IP was only able to develop a range of potential measurement errors on the turbine injection meters based on the compressor loadings. The bottom end of that range was about 2%, or approximately equal to the calculated orifice withdrawal meter errors. (*Id.*) As a result, the Company did not believe it had a sufficient basis to make a gas inventory correction at that time. (*Id.*) Nonetheless, the identification of the turbine injection meter over-spin problem relating the operation of the compressors, and the implementation of the corrective actions recommended by Peterson Engineering, as described above, essentially ended the injection metering measurement error as of the start of the 2000 injection season.[16] (*Id.*, p. 16)

iv. Identification of the Injection Metering Error and Inventory Depletion as the Cause of the Deliverability Decline and Implementation of Actions to Restore the Field

As described in Section II.A.2.b.ii, above, Illinois Power continued to investigate possible structural causes for the Hillsboro deliverability decline after 2000. The volumetric analysis performed in 2002, described above, calculated that the amount of gas in the Field had

[16]Subsequently, IP has replaced the turbine injection meters with newer ultrasonic meters that are not affected by operation of the compressors due to their different technology. These replacements occurred in 2003 and 2004. (Rev. IP Ex. 14.1, p. 10; IP Ex. 14.3, pp. 9-10)

been depleted by approximately 5.5 bcf since 1993. (Rev. IP Ex. 14.1, pp. 15-16) In addition, a comparison was performed of the gas measured on the plant turbine injection meters for specified time periods to the gas injected at the individual wells as measured by injection metering at the individual wells, for the same time periods. This comparison showed that the turbine meters had been recording substantially more gas as injected into the Field than had actually been injected, over an extended period of time. (*Id*., pp. 15, 16) Further, the analyses IP conducted to determine if the deliverability decline was caused by a structural problem, as described in the preceding subsection of this brief, enabled IP to rule out the likelihood that the source of the gas inventory depletion was a structural or geological problem. (*Id.*, p. 16)

Accordingly, Illinois Power concluded that the cause of the Hillsboro deliverability decline was that the gas inventory in the Field had been substantially depleted as a consequence of the injection metering error occurring over time. (*Id*., pp. 16-17) IP determined that it would be necessary to restate the gas volumes actually in the Field from the volumes shown on IP's accounting records (which were based on the injection metering), and that to return to the design characteristics of the Field, the proper inventory levels must be restored. (*Id*., p. 17; IP Ex. 14.2, p. 1; Rev. IP Ex. 13.1, pp. 4-5; IP Ex. 2.1, p. 17) The specific actions required were to (1) determine the gas inventory shortfall that had resulted from the injection metering error; (2) restore the base gas inventory volume to the original (post-expansion) 1993 amount of 14.1 bcf; and (3) reinject gas to restore the 1993 working gas volume of 7.6 bcf. (Rev. IP Ex. 14.1, p. 17)

The amount of the gas inventory shortfall was determined using the analyses described in Section II.C.2 of Illinois Power's Initial Brief (and discussed further in Section II.A.3 of this Brief, below). A plan was developed for reinjecting the depleted base and working gas amounts into the Field, and reinjections were initiated during 2003. (Rev. IP Ex. 14.1, p. 18; IP Ex. 14.2,

p. 1) Reinjection of the base gas has been completed. (Rev. IP Ex. 13.1, p. 5) Reinjection of the full working gas amounts is to be completed during the 2006 injection season.[17] (Rev. IP Ex. 14.1, p. 18; IP Ex. 14.2, p. 1) Additionally, prior to the start of the 2003-2004 winter season, IP restored the peak deliverability rating of Hillsboro to 125,000 mcf/day. (Rev. IP Ex. 14.1, p. 19)

The foregoing discussion in this Section II.A.2.b shows that Illinois Power acted prudently in investigating the cause of the Hillsboro deliverability decline, isolating and eliminating potential causes, and ultimately identifying the cause, implementing corrective actions to eliminate it and developing and implementing a plan to restore Hillsboro to its 1993 design parameters. IP was extremely proactive in trying to identify and correct the root causes of the Hillsboro deliverability and inventory problems. (Rev. IP Ex. 13.1, p. 19) The Company investigated multiple possible causes for the deliverability decline, including structural or geological causes (from a real-time perspective, the most likely source of the problem for a storage field that had just undergone a significant expansion), obstructions in the well bores that restricted access to gas in the Field, and metering errors. Multiple analyses were pursued on parallel paths. Outside resources (external engineering and geological consulting firms) as well as internal resources were brought to bear on the problem. Corrective actions recommended by outside consultants for identified problems were implemented. Potential causes of the deliverability decline were eliminated based on the results of these analyses, until Illinois Power ultimately determined that the cause of the deliverability decline was the depletion of the gas inventory in the Field resulting from the turbine injection metering error.

Staff witness Lounsberry did not criticize any of the above-described specific studies or analyses Illinois Power performed, the need for or appropriateness of those analyses, or the

[17]The reinjections planned for the 2004 injection season were successfully completed. (Rev. IP Ex. 13.1, p. 9)

timing of when they were conducted. In summary, the record demonstrates that in investigating, and ultimately identifying and resolving, the cause of the Hillsboro deliverability decline, Illinois Power exercised the standard of care that a reasonable person would be expected to exercise under the circumstances encountered by management at the time its decisions were being made and actions being taken, based on the facts available at those times.

c. The Specific Concerns Cited by Staff Witness Lounsberry Do Not Show That IP Acted Imprudently

As shown above, the record affirmatively demonstrates that Illinois Power acted prudently with respect to determining the cause of the Hillsboro deliverability decline, which ultimately proved to be the depletion of the gas inventory due to the injection metering error. The specific concerns raised by Staff witness Lounsberry, as cited pages 21-22 of Staff's Initial Brief, do not demonstrate that IP acted imprudently or that it should be denied recovery of the costs of the reinjected base gas. In fact, Staff's allegations amount to nothing more than a mess of red herrings, as shown below.

Staff first asserts that "one cause of the measurement errors was an accuracy problem resulting from the orifice opening being smaller then [sic] the value stamped on the orifice plate utilized on IP's withdrawal meters." (Staff Init. Br., pp. 21-22) This assertion is completely inaccurate. The measurement error that resulted in the inventory depletion occurred *solely* at the plant turbine injection meters. (IP Ex. 14.3, p. 18) Indeed, as noted above, the error in withdrawal measurement due to the incorrectly sized orifice opening was about 2%, while the turbine injection metering error proved to be much larger, so there is no basis to conclude that earlier detection of the erroneously-labeled orifice opening would have led to earlier discovery of

the turbine metering problem.[18] Staff's assertion is further inaccurate because (as discussed earlier in this brief), there was an incorrectly labeled orifice plate on only one of the four withdrawal meters, not all of them.

Staff's next assertion – that "the metering errors related to the orifice meters would have been discovered shortly after their installation if the Company had followed some basic industry standards" (Staff Init. Br., p. 22) – is erroneous and misleading on multiple levels. *First*, as discussed earlier, the withdrawal metering error related to only one of the four orifice withdrawal meters.

Second, Staff's assertion might be more accurate if it were revised to read: ". . . if the Company had followed some basic **but inapplicable** industry standards." One of the "basic industry standards" cited by Mr. Lounsberry was 83 Ill. Administrative Code Part 500, whose provisions, he admitted, "apply only to utility meters used to measure customer load."[19] (Staff Ex. 7.0, p. 47) He further admitted that "the Part 500 requirements to [sic; do] **not apply to storage field orifice meters**" and "I am not suggesting that IP violated a Commission rule".[20] (*Id*., p. 49; emphasis supplied)

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[18]As noted above, the amount of the withdrawal metering error could be calculated with a high degree of accuracy.

[19]Staff's discussion of Code Part 500 is preceded by the statement that IP's inspection practice for the Hillsboro orifice meters "was inconsistent with the Commission's requirements for those types of meters." (Staff Init. Br., p. 45) Since Staff itself later acknowledges that "Code Part 500 standards do not apply to utility storage fields" (*Id*., n. 12), the quoted statement is misleading.

[20]Staff states at page 47 of its Initial Brief that "Staff, through its enforcement of Part 500, ensures every Illinois utility follows the intent of the requirements contained in that section." Apparently the enforcement arm of Staff does not believe that IP needs to follow the inspection and testing requirements of Part 500 for its storage field orifice meters, as Mr. Lounsberry cites no notices of violation or noncompliance issued by the Office of Pipeline Safety ("OPS") to IP on this topic. In fact, as a result of its annual audits of all seven of IP's storage fields, the OPS

The other "basic industry standard" cited by Mr. Lounsberry is "AGA Report #3" which contains certain provisions quoted at page 46 of Staff's Initial Brief. However, Staff is forced to admit that "AGA Report #3 contains the **guidelines for the installation** of orifice meters." (Staff Init. Br., p. 46; emphasis supplied) AGA Report #3 does not cover maintenance or testing of orifice meters. (Rev. IP Ex. 14.1, p. 34) Staff has made no contention that the guidelines of AGA Report #3 were not complied with when the Hillsboro orifice meters were *installed*. To the contrary, the same Peterson Engineering report cited by Staff concluded with respect to the withdrawal metering installations at Hillsboro, "In general, the metering layout is well designed and is in general conformance with AGA Report #3, Part 2." (Rev. IP Ex. 14.1, p. 36) In other words, the orifice station metering at Hillsboro was designed and installed to the standards of AGA Report #3. (*Id*.) Further, although Mr. Lounsberry and Staff cite an observation in the Peterson Engineering report[21] that when the plates on the four orifice withdrawal meters were pulled and inspected they were dirty to varying degrees (Staff Init. Br., pp. 46-49, citing Staff Ex. 7.0, p. 49), the fact is that all of the orifice plates were found to be not degraded and were still service-worthy.[22] (Rev. IP Ex. 14.1, p. 35)

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has issued only one "Non-Compliance" and two "Observations" to IP over the past five years, all of which were minor in nature and quickly addressed. (Rev. IP Ex. 13.1, p. 18)

[21]The Peterson Engineering report, having been prepared and released in December 1999, is a hindsight review of IP's practices prior to that date, just as was the "Shanghai Report" relied on by Mr. Lounsberry in Docket 01-0701. (See Order in Docket 01-0701, p. 23)

[22]Staff and Mr. Lounsberry cite the Peterson report's observation that the South primary meter was "very dirty". (Staff Init. Br., p. 47; Staff Ex. 7.0, p. 49) They fail to note that it was the South secondary meter that had the incorrectly labeled orifice plate. (Rev. IP Ex. 14.1, pp. 8-9) More generally, Staff identifies no evidence that the "dirty" condition of these plates caused any measurement error. The only withdrawal measurement error occurred due to the incorrectly labeled orifice opening.

Third, putting aside the fact that Mr. Lounsberry and Staff have not cited any maintenance and inspection standards that are in fact applicable to the Hillsboro orifice withdrawal meters, the problem with the orifice withdrawal meter at Hillsboro was not caused by any deterioration due to lack of maintenance, but rather was due to the fact that although the label stamped on the orifice plate in question by the manufacturer stated that the orifice opening was the size that IP had ordered, in fact the orifice opening was somewhat smaller than the labeled (and ordered) size.[23] (IP Ex. 14.3, p. 17) It is also interesting to note that, as Staff points out elsewhere, Code Part 500.190 specifies a 2% accuracy requirement for customer load meters when tested. (Staff Init. Br., pp. 11-12) Although Code Part 500 does not apply to the Hillsboro withdrawal meters, the measurement error caused by the incorrectly sized orifice opening on one meter was approximately equal to the allowable error per Code Part 500.190.

Fourth, since the issue raised by Staff is prudence, which is to be judged under a reasonable person standard and without substitution of one person's judgment for another's judgment (see Section II.A.2.a above), Staff has failed to explain why IP should have been expected to expend the effort and expense (which presumably it would be entitled to recover from its customers) to operate and maintain its storage field metering in accordance with regulations, standards and guidelines that by their terms are not applicable to storage field metering. Such a course would seem imprudent rather than prudent, and inconsistent with efficient and least-cost operations. Nor has Staff presented any evidence that other Illinois gas utilities are incurring the additional expense necessary to operate and maintain their storage field

[23]IP did, however, have specific annual inspection and calibration procedures for the Hillsboro orifice meters, which Staff refers to at page 47 of its Brief. (See Rev. IP Ex. 14.1, pp. 34-35) Staff offers no criticism of the procedures that IP *did* have in place.

metering in accordance with regulations, standards and guidelines that by their terms are not applicable.

Staff's next assertion is that IP's failure to inspect its orifice meters more frequently, "thereby prevent[ing] the discovery of this problem", had the effect of "clearly contribut[ing] to the measurement errors that drove the need to use recoverable base case [sic; gas] to serve current load."[24] (Staff Init. Br., p. 22) Once again, this assertion is unsupported by the record. As shown above, it was the turbine injection metering error, not the incorrectly labeled orifice plate on one of the four withdrawal meters, that caused the Hillsboro inventory depletion. As also shown above, the withdrawal metering error induced by the incorrectly labeled orifice opening was only 2% whereas the turbine injection metering error was much larger. The withdrawal metering error only mitigated the injection metering error by about 14%. (IP Ex. 14.3, p. 18) Further, given that the actual (but incorrectly labeled) orifice plate opening only produced a 2% withdrawal measurement error as compared to what would have been recorded had the opening been the size labeled on the orifice plate, the variance between the actual opening and the labeled size might not have been observable on visual inspection.

Moreover, each of the specific "facts" discussed above that Staff cites as evidence of imprudence relates to the orifice withdrawal meters and not to the turbine injection metering that was the actual cause of the measurement error and the inventory depletion. Staff has cited no evidence of inappropriate installation, operation or maintenance practices, or any other putative evidence of imprudence, with respect to the turbine injection meters themselves.

Staff's final assertion in support of its imprudence argument is that "IP's load forecasting and dispatch group failed to notice the variance between the volumes of gas received from the

[24] As shown earlier, IP did inspect and calibrate the orifice withdrawal meters annually.

pipelines and the amount measured at its Hillsboro storage field", a bcf of gas on average for six years. (Staff Init. Br., p. 22) This assertion was addressed at pages 62-63 of IP's Initial Brief, where we explained why Mr. Lounsberry's assertion in this regard is unsupportable when analyzed in the context of operational realities and the daily volumes (and sources thereof) present on IP's gas system (which is the context in which a prudence analysis must be conducted). As described there, the average Hillsboro injection metering error of about 4,000 mcf per day was less than either (i) the amount of linepack typically in IP's gas system, or (ii) the potential daily variance between transportation customers' nominations and deliveries as allowed under IP's transportation tariff. This Staff assertion is clearly hindsight oriented.

In its Brief, Staff cites Mr. Lounsberry's testimony in which he compared the average injection measurement error of 4,000 mcf/day (equal to about 40,000 therms/day) to the "system throughput for non-transportation customers" on a July day of about 295,000 therms. (Staff Init. Br., p. 51, citing Staff Ex. 17.0R, p. 49) Although Mr. Lounsberry claims no actual hands-on experience in gas utility operations (see Staff Ex. 7.0, p. 1), even he has been around the gas industry long enough as a regulator to know that this comparison is bogus. The "throughput for non-transportation customers" to which he limited his example would be only a portion of the volumes that the gas dispatchers would see entering IP's system on a July day. The total gas volume entering IP's system from the pipelines, including both gas for non-transportation customers and gas of transportation customers, would be about 105,000 mcf per day. On a real-time basis, the gas dispatchers would not be able to distinguish between deliveries for transport customers and deliveries for non-transport customers.[25] In addition to the gas intended for end

[25]Further, as pointed out at pages 62-63 of IP's Initial Brief, although the dispatchers know the total pipeline deliveries on a given day, they do not know the actual customer consumption on a given day to enable them to compare total deliveries to total usage. This is primarily because the

users, gas would be entering IP's system on a July day for injection into its storage fields. In total, the amount of gas entering IP's system on a July day could be 220,000 to 280,000 mcf, in contrast to the average daily Hillsboro injection metering error of 4,000 mcf, which would not be noticeable against these total incoming daily volumes. (Rev. IP Ex. 13.9, pp. 18-19)

In summary, Staff witness Lounsberry's contention that IP's gas dispatchers should have been able to detect the amount of gas being received into IP system but not injected into Hillsboro, in light of the totality of the gas volumes present on IP's system on a daily basis and the other variables affecting the daily load, is unrealistic and unsupported by the record.

d. Staff's Contention That IP Should Recover the Reinjected Base Gas Costs at Issue Through the PGA Must Be Rejected

Staff argues that Illinois Power should seek to recover the cost of the base gas inventory that has been reinjected into the Hillsboro Storage Field through the PGA, rather than including it in rate base in setting base gas rates. Staff also argues that under normal circumstances, recoverable base gas injected into a storage field is withdrawn when the storage field is retired; therefore (Staff argues), IP should not be allowed to increase rate base by the cost of the base gas that it has reinjected into Hillsboro, but rather the base gas component of rate base should remain at the value included in rate base in IP's 1994 gas rate order. (Staff Init. Br., pp. 20-23) Staff's argument is unsupportable in light of the facts and the Commission's PGA rule.

Neither Staff's Initial Brief nor the testimony of Staff witness Lounsberry on which it relies cites any Commission rule or order or other binding provision of law that *prohibits* the withdrawal of recoverable base gas prior to retirement of a storage field or that *requires* that the value of a storage field's recoverable base gas be set when the field first goes into service and not

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vast majority of customers are not metered (or read) on a daily basis, but only on a non-calendar month monthly cycle basis. (See Rev. IP Ex. 13.9, p. 19)

be changed thereafter.[26] Assuming for purposes of discussion that recoverable base gas typically is not withdrawn from a storage field until the retirement of the field, that is not what has happened in this case. Rather, base gas was withdrawn from Hillsboro and supplied to customers. The cost of the withdrawn gas that was supplied to customers is being recovered from customers through the PGA. (Rev. IP Ex. 13.1, p. 5) Because the 1993 vintage base gas that was withdrawn was lower cost than the gas that would have been supplied to customers directly from pipeline purchases (as evidenced by the fact that after replenishment the book cost of the base gas is $10,368,000 higher), customers have benefited from being supplied the lower-priced gas. At the same time, the actual cost of the base gas in storage in the Hillsboro Field has increased by $10,368,000 due to the reinjections. The current recoverable base gas in the Field is enabling IP to provide storage service to its customers and the book cost of that gas is the value that should be included in rate base.

As Illinois Power pointed out in its testimony and in its Initial Brief, the Commission's PGA rule, 83 Ill. Adm. Code 525.40(c), states: "The cost of gas estimated to be withdrawn from storage during the base period shall be included in the Gas Charge(s)." The $10,367,838 of base gas in question was not injected in the Hillsboro Field with the intention of withdrawing it to supply customers, and it has not in fact been withdrawn from storage to serve customers. Therefore, the cost of this base gas should be recovered through IP's base rates, not through its PGA. (Rev. IP Ex. 2.35, pp. 52-53; IP Init. Br., pp. 27-28) In contrast, the cost of the original base gas that *was* withdrawn from storage and supplied to customers *should* be recovered

[26]Staff's Initial Brief cites to page 5 of Mr. Lounsberry's rebuttal testimony (Staff Ex. 17.0R). The only mention of this topic at page 5 of Staff Exhibit 17.0R is a parenthetical statement that recoverable base gas is "not normally expected to be withdrawn from a storage field before it is retired".

through the PGA in accordance with the above-quoted provision of the Commission's PGA rule. Staff has never responded to these points.

Finally, IP disagrees with Staff's assertion that including the cost of the reinjected base gas in rate base (rather than collecting it through the PGA) will result in "unnecessary increased costs for ratepayers." (Staff Init. Br., p. 23) There is no dispute that the withdrawn original base gas was supplied to customers, and that it was less costly than supplying the same amount of gas through current purchases. Thus, customers are benefiting from having received this amount of gas supply at a lower price. With respect to the cost of the reinjected base gas, the choice is having customers pay for it currently (or in the near future) through the PGA versus, in essence, paying carrying costs on this gas (through return on rate base) until such future time as the base gas is withdrawn from storage and supplied to customers.[27] Assuming that the rate of return on rate base accurately represents the cost of capital, this choice should be a matter of indifference to customers on a present value basis.[28] Certainly, Staff has presented no evidence that IP's total costs of gas supply were increased over time by the turbine injection metering error.

3. Staff's Concerns Relating to the Accuracy and Reliability of IP's Hillsboro Base Gas Inventory Amount Do Not Warrant Rejection of IP's Base Gas Inventory Component of Rate Base

At pages 6-20 of its Initial Brief, Staff summarizes its concerns with respect to the accuracy and reliability of the amount of the Hillsboro gas inventory depletion as determined by IP. IP has already addressed most of Staff's points, which are based on Staff witness Lounsberry's testimony, in Section II.C.2 of our Initial Brief (pp. 13-27). Therefore, IP will

[27]Had there been no Hillsboro metering error, this higher-priced gas already would have been delivered directly to customers and billed through the PGA.

[28]Although IP has stipulated to the rate of return for purposes of this case, IP believes the stipulated rate of return is well below the cost of capital.

respond in this Reply Brief only to those Staff arguments that we have not already fully addressed.

Staff contends that the adjustment to the Hillsboro base gas inventory should not be included in rate base because the amount by which IP determined the inventory had been depleted "is an estimate." (Staff Init. Br., p. 4) While Staff's specific concerns about the three analyses IP conducted to develop the gas inventory depletion amount can be addressed on their merits, the fact that the value is "an estimate" is not a basis to reject it. Any impression that Staff is attempting to convey that "estimates" are not used in setting regulated rates would be fallacious. Estimates are frequently employed in setting rates. For example, one of the most significant components in the ratemaking calculation, the cost of common equity, is an estimate. In this case Staff cost of capital witness Janis Freetly frequently referred both to her recommended cost of common equity and to many of the inputs she used in her analysis as "estimates". (See Staff Ex. 4.0, pp. 14-31, where the word "estimate" is used by Ms. Freetly on virtually every page.) Indeed, the entire concept of the test year revenue requirement is an estimate that the utility's adjusted, historical revenue requirement (for an historic test year) or its forecasted revenue requirement (for a future test year) will equal its actual revenue requirement during the period the new rates are in effect.[29]

Nor is the use of estimates limited to determining the revenue requirement. Once the revenue requirement is determined, the process of determining how much of the revenue

[29]There are other examples of the use of estimates in setting rates. Estimated asset service lives and salvage values are used to develop depreciation rates (see IP Ex. 11.1, pp. 4-5) which in turn help to determine two of the largest components of the revenue requirement calculation, the provision for accumulated depreciation and amortization and depreciation and amortization expense. As another example, pension and OPEB expenses used in setting rates are based on actuarial estimates.

requirement should be paid by each customer class is also an estimating process. As Staff itself states at page 69 of its Initial Brief , citing Staff witness Peter Lazare:

> [I]t should be remembered that cost of service studies are an art, not a science. The results obtained are only **estimates** of the responsibility of customer classes for individual costs and **often based on imperfect data** as the Company's proposed services allocator demonstrates. (emphasis supplied)[30]

In summary, the mere fact that the amount by which IP determined the Hillsboro base gas inventory was depleted is an "estimate" does not disqualify this value from being employed in setting rates. As shown in IP's Initial Brief and in this Reply Brief, the amount by which the Hillsboro base gas inventory was depleted and thus needed to be replaced, as determined by IP, is reasonable, reliable and based on state-of-the-art techniques for determining the volumes in place in a gas or oil reservoir. Certainly, the value that IP determined and proposes to use for rate base purposes – 1.8 bcf – is a more accurate "estimate" than the value Staff witness Lounsberry proposed to use for rate base purposes, namely, zero mcf.[31] What Staff is proposing is to reject the most reliable information in the record and to use instead a value that everyone knows is incorrect.

a. Volumetric Analysis

As noted at page 19 of Illinois Power's Initial Brief, where IP described the volumetric analysis it conducted, Mr. Lounsberry provided no specific criticisms or concerns regarding the volumetric analysis in either his direct or rebuttal testimony. Staff also provides no specific

[30]To take this point even farther, a number of Illinois gas utilities, including IP, *bill their customers* using *estimated* meter readings for six months of the year.

[31]Staff has not disputed that the Hillsboro gas inventory was depleted due to the turbine injection metering error and needed to be restored in order to return the Field to its full design capabilities. See, e.g., Staff Init. Br., p. 7 ("Staff does not dispute that a significant error occurred") and pp. 10-11 ("the well chart review demonstrates that a significant measuring error existed").

criticisms or concerns about this analysis in its Initial Brief, but complains that the difference between the value produced by the volumetric analysis and IP's final determination of the overall (base plus working gas) inventory depletion (which was much lower) calls into question both values.[32] This concern does not warrant rejecting the final inventory depletion value that IP determined. To the contrary, the results of the volumetric analysis demonstrate that if the total inventory depletion value determined by Illinois Power (5.8 bcf) is in error, it is in error to the low side not to the high side (i.e., it is a conservative estimate).

b. Metering Study

Staff states four concerns with respect to the metering or well chart study, which was one of the three analyses IP conducted in determining the amount of the Hillsboro gas inventory depletion. Those concerns are: (1) IP only used 5 days (16.7%) of data per month, which Staff contends is insufficient to "accurately extrapolate a month's usage"; (2) the orifice meters at the individual inject/withdraw wells at Hillsboro "are not maintained to industry standards so as to provide reliable, accurate readings"; (3) IP only calculated the correction factors for four of the six years that the injection metering error occurred; and (4) IP "ignored" the correction factors computed for three of the four years. (Staff Init. Br., pp. 9-10) These concerns are extensively addressed at pages 20-25 of Illinois Power's Initial Brief, so only limited additional response to these points is necessary, below. Illinois Power again emphasizes that of the three separate analyses it conducted in determining the Hillsboro inventory shortfall, it placed the least reliance on the well chart analysis. (See IP Init. Br., p. 21)

[32]At page 7 of its Initial Brief, Staff states: "Staff agrees with the Company's conclusion that the 8.4 Bcf shortfall is an 'inaccurate' value." Staff provides no citation to any IP testimony or documents that refer to the results of the volumetric analysis as an "inaccurate" value, and IP does not believe it has characterized the volumetric analysis result as "inaccurate."

i. Limited Number of Days

Staff acknowledges that in conducting the well chart analysis, IP used the data from the vast majority of days for which it had a chart available from each of the inject/withdraw wells, and that the days it utilized represented 25%, 15%, 19% and 15%, respectively, of the total number of days in 1994, 1995, 1998 and 1999 on which gas was injected into the Hillsboro Field.[33] (Staff Init. Br., p. 10, citing IP Ex. 14.3, p. 4) In short, despite all the discussion in the record about the effort that would have been required to integrate more well charts, the fact is that IP used the well chart data for virtually all the injection days for which sufficient data was available in these four years. (IP Ex. 14.3, p. 4) Staff's assertion, which essentially is that this was not enough data, is a subjective criticism, not an empirical one. Illinois Power believes that data from a sufficient number of days was used to be representative, particularly in light of the manner in which the well chart analysis was used in determining the final inventory shortfall value of 5.8 bcf. The well chart analysis used data from the injection season, which is the non-winter portion of the year and thus the period in which temperature-sensitive heating load on the system is minimal or non-existent. Therefore, the injection volumes can be expected to be reasonably consistent over time, so that using well chart data from 15% to 25% of the days on which gas was injected in a year should be reasonably representative.

ii. Accuracy of Orifice Meters

The emphasis that Staff places on the fact that the Hillsboro orifice injection meters are not set up in accordance with requirements applicable to meters that measure customer loads for billing purposes is overdone, and does not warrant rejecting the metering analysis as a useful

[33]The manner in which the well chart analysis was conducted is described at pp. 20-21 of IP's Initial Brief.

component of the overall determination of the Hillsboro inventory shortfall.[34] The main storage field injection meters themselves (whose measurement error IP was attempting to determine) are not set up in accordance with the requirements applicable to customer load meters – as Staff states, "Code Part 500 standards do not apply to utility storage fields." (Staff Init. Br., p. 45) Moreover, as Staff acknowledges, the 1999 Peterson Engineering audit of the Hillsboro metering (on which Staff relies to support a number of its other criticisms) concluded, "the individual well metering was reasonably accurate when injecting gas [which were the metering results IP used in the well chart analysis], but not accurate for natural gas withdrawal." Additionally the Peterson report concluded that "For injection, the meter runs are in general accordance with AGA Report #3, Part II for the installed orifice plates". (Rev. IP Ex. 14.1, pp. 21-22; IP Ex. 14.3, pp. 7-8)

Staff criticizes the fact that when IP performed separate well chart analyses for 2000 and 2002 (after the turbine injection metering error had been remediated) to evaluate the accuracy of this method, the injection volumes as determined at the well meters varied from the injection volumes as measured on the turbine meters by (0.95)% for 2000 and (2.7)% for 2002. Specifically, Staff criticizes the variance for 2000 of (2.7)% as too high because 83 Ill. Adm. Code 500.190 (applicable to customer load meters) "requires that a meter may not be more than 2% slow." (Staff Init. Br., pp. 11-12) This criticism is taken from Staff witness Lounsberry's rebuttal testimony (Staff Ex. 17.0R, p. 12). Once again, Mr. Lounsberry has been involved in the gas industry long enough to know that his comparison is bogus. The 2% accuracy requirement specified in Code Part 500.190 is applicable to meters that are retested per the provisions of Code Parts 500.200 and 500.210, and allows custody transfer meters to be reinstalled at customer

[34]IP does not understand Staff's point to be a criticism that the injection metering on the individual wells at Hillsboro *should* be set up in accordance with the requirements for customer load meters, but rather an observation that because the well meters are not set up in accordance with those standards, their measurements may not be as accurate as customer load meters.

premises without adjustment. The testing of a meter under Code Part 500.200 requires suitable testing equipment and is performed at two rates of steady state flows. In other words, the 2% accuracy requirement of Code Part 500.200 is based on a test of a single meter against a fixed test device. In contrast, the (2.7)% difference between the injections measured on the Hillsboro turbine meters and on the well injection meters was based on a comparison of the measurements recorded by two different sets of operating meters. Each set of meters could have been operating within 2% accuracy per the requirements of Part 500.190 yet there could be a 2.7% difference (or larger) between their respective measurements.[35] (IP Ex. 14.3, pp. 8-9)

Staff also complains that the well chart integrations for the confirmatory 2000 and 2002 analyses were performed using IP's in-house chart integration program, not by an outside chart integration service. (Staff Init. Br., pp. 11-12) IP acknowledges that it would expect its in-house program to be less accurate (in terms of chart integration, not actual measurements) than a chart integration performed by an outside service, but this only makes the small variances between the injection well measurements and the turbine meter measurements in the 2000 and 2002 analyses more convincing in terms of showing that the well chart method is reliable. Further, this Staff comment is inconsistent with other Staff arguments, because Staff elsewhere complains about the fact that IP placed heaviest reliance on the chart integration results for 1994, which were performed by an outside integration service, rather than those for 1995 and 1999, which were performed using IP's in-house program. (Staff Init. Br., pp. 13-14)

Staff also comments that IP must have been concerned about what Staff characterizes as "the continued error" because IP replaced the Hillsboro turbine injection meters in 2003 and

[35]Moreover, Code Part 500.240 (Adjustment of Bills for Meter Error) provides that for a customer meter in service which is tested, the customer's previous bills are to be adjusted only if the average meter error is tested to be greater than 4%. (IP Ex. 14.3, p. 9)

2004. (Staff Init. Br., p. 12) This assertion is also inconsistent with other Staff arguments since Staff elsewhere contends that IP has been (in Staff's unsupported view) "reactive rather than proactive when determining when to make upgrades or other improvements at its storage fields" (*Id*., p. 40), yet here Staff proffers a negative inference from the fact that IP replaced the turbine meters with newer-technology ultrasonic meters even though the turbine meters were not worn out. As IP witnesses Hood and Kemppainen explained, the turbine meters were replaced with the ultrasonic meters because (i) the ultrasonic meters require less maintenance than the turbine meters, thereby providing maintenance cost savings; (ii) replacement of the turbine meters eliminated the need for operating personnel to devote attention to operating the compressors at loadings that did not impact the turbine meter measurements; and (iii) the ultrasonic meters are a newer, more technologically advanced product which provides improved measurement. (IP Ex. 14.3, pp. 9-10) Staff attempts to make some point out of the latter factor, but the fact that a newer technology product (which was not available previously) performs better than an older technology product is unremarkable.

Further, Staff's emphasis on the fact that the ultrasonic meters provide improved measurement as compared to the turbine meters is irrelevant to the reliability and accuracy of the well chart analysis, which measured the amount of the 1993-1999 turbine metering error based on the *difference* between the injection volumes recorded by the turbine meters and the injection volumes measured by the metering at the individual injection wells. Ultimately, Staff's comments about the 2000 and 2002 confirmatory analyses and the replacement of the turbine meters with ultrasonic meters provide no useful information to the Commission on this issue. The bottom line is that the well chart analyses that IP performed for 2000 and 2002 (after the cause of the turbine injection metering error had been remediated) showed that the integrated

well chart metering data from the 14 individual injection wells can be used to accurately depict the amount of gas injected into the Hillsboro Field in a given time period.

iii. "Other Deficiencies" (in the Well Chart Study)

The well chart study produced correction factors to the injection data recorded on the turbine meters of (22.1)% for 1994, (7.0)% for 1995, (12.7)% for 1998 and (8.9)% for 1999. (IP Ex. 14.2, p. 3) The (22.1)% correction factor corresponded to the in-Field gas volumes determined by IP's reservoir modeling analysis. (*Id*., p. 4) In refilling the Field, IP observed that as of November 2004, it has reinjected 2.6 bcf of gas into Hillsboro without any gas being seen at two key observation wells, Gregg No. 1 and Furness No. 1; and that one can conclude from these facts that the (7.0)% and (8.9)% correction factors indicated by the 1995 and 1998 well chart analyses were lower than the actual metering error. (Rev. IP Ex. 14.1, pp. 24-25) Staff comments that all this shows is that IP's in-house chart integration program, which was used to integrate the well charts for the 1995 and 1998 analyses, is not reliable. (Staff Init. Br., pp. 13-14) Staff's comment completely misses the point. The issue is whether IP's use of the (22.1)% correction factor for the entire period – because it best matched the estimate of gas in place in 2004 developed using the reservoir modeling analysis – was appropriate, or whether IP should have factored in the lower correction factors calculated for the other three years. The point – which is highly relevant – is that *if* the turbine metering error had only been in the range of (7.0)% to (8.9)% -- meaning that the gas inventory depletion would have been less than 2.6 bcf[36] – *then* by the time IP had reinjected 2.6 bcf of gas into the Hillsboro Field, it should have been seeing gas at these observation wells. However, since no gas has been observed at these wells by

[36]E.g., (5.8 bcf divided by .221) X .09 = 2.36 bcf.

November 2004 despite the reinjection of 2.6 bcf, the four-year correction factor (turbine injection measurement error) must exceed (8.9)%.[37]

The other Staff comments at pages 13-14 of its Initial Brief have been responded to in the discussion of the well chart analysis at pages 20-25 of IP's Initial Brief.

c. Reservoir Simulation

As discussed in Illinois Power's Initial Brief (pp. 14-19), IP placed the greatest reliance on the results of the reservoir simulation analysis, and in fact the gas inventory shortfall value produced by this analysis, 5.8 bcf, was the overall shortfall value determined by the Company after considering the results of the other two approaches (volumetric analysis and metering study). As summarized at pages 15-18 of Staff's Initial Brief, Staff witness Lounsberry had two concerns about the reservoir modeling approach. However, neither of his concerns casts doubt on the reliability or accuracy of the reservoir simulation approach or of the 5.8 bcf Hillsboro gas inventory shortfall value determined by the Company.

i. Limitation of Reservoir Model

Staff witness Lounsberry expressed concern that although the Hillsboro Storage Field covers 5,247 acres, the reservoir simulation model was developed using data obtained from the Field's 24 wells, and that "given the sheer size of the field and the limitation of the computer model", outputs from the model should not be used "to reach concrete decisions for the rates that IP's customers are charged." (Staff Init. Br., p. 15) However, reservoir simulation is routinely used in the industry to evaluate hydrocarbon reservoirs that are much larger in size than Hillsboro yet contain fewer wells from which to obtain data on the performance and

[37]Additionally, this information further demonstrates that Mr. Lounsberry's proposal to assume the gas inventory depletion was zero, because IP's value of 5.8 bcf is not sufficiently accurate, is erroneous. Based on the actual reinjection of gas in 2003 and 2004, the Hillsboro gas inventory depletion has to have been larger than the 2.6 bcf that was reinjected as of November 2004.

characteristics of the reservoir, and based on those evaluations to make investment decisions involving hundreds of millions of dollars. (IP Ex. 17.1, p. 13) Mr. Hower, who is far more qualified and experienced in this area than is Mr. Lounsberry, confirmed that the data available on Hillsboro is more than sufficient to construct a robust numerical simulation model that can be used with confidence in determining the total gas volume in the storage reservoir. (*Id.*) He pointed out that the reservoir simulation techniques adhere to the standards defined by the Society of Petroleum Engineers ("SPE") and the Securities and Exchange Commission ("SEC"), who are responsible for specifying the techniques that the oil and gas industry uses in the assessment of hydrocarbon volumes, such as the amount of proven underground reserves. (*Id.*, pp. 6, 13)

Staff witness Lounsberry, however, argued that "the standards of the SPE and the SEC are not relevant for setting rates", because although reservoir simulation models are used to meet government disclosure requirements or to produce reserve estimates used by investors in deciding whether to invest in a company, "the Commission is making ratemaking decisions for ratepayers who have no, or very little, choice about how IP manages its operations." (Staff Init. Br., p. 16) Mr. Lounsberry's attempted distinction, however, is invalid, and there is no basis for his implication that the development of storage field inventory or reserve estimates for financial reporting and public company investor disclosure purposes is somehow less important than the development of such information for use in setting regulated rates. (IP Ex. 17.6, p. 3) Reserve estimates disclosed by oil and gas producing companies can be a very material part of investors' evaluations of those companies and whether to make investments in their securities and at what price. Further, most investors have no ability to "double-check" the reserve estimates published by such companies, so it is important to the integrity of the public capital markets that the most

reliable techniques available, such as those used by IP in determining the Hillsboro gas volumes in place, be used. (*Id*.) This is precisely why these same techniques are required by the SPE and the SEC for the preparation of reserve estimates that are published for financial reporting and disclosure purposes. Indeed, recent experience has shown that changes to reserve estimates, and damage to the credibility of the companies providing them, can have significant financial impacts in the capital markets (and on unsuspecting investors) as well as potentially resulting in serious financial liabilities for the companies. (*Id*.) Thus, there is no basis for Mr. Lounsberry's suggestion that reservoir modeling techniques are not good enough to use in setting rates.

Moreover, the reservoir modeling techniques that Mr. Lounsberry suggests are not good enough to use in setting regulated rates are in fact the state-of-the-art techniques for determining the volumes of gas or oil in an underground reservoir. Whether the task at hand is determining the volume of proved reserves from a producing hydrocarbon asset or setting regulated rates, the objective is to determine the most accurate value possible. There are no better techniques available for doing this than the reservoir modeling techniques used by IP in determining the amount of gas in the Hillsboro Storage Field and thus the gas inventory depletion amount. (IP Ex. 17.6, pp. 2-3)

Staff witness Lounsberry also contended that the reservoir simulation techniques are appropriate for "production reservoirs" but not for aquifer storage reservoirs such as Hillsboro which did not originally contain natural gas and for which the volume of gas injected into the reservoir should be known. (Staff Init. Br., pp. 16-17) Again, his attempted distinction is baseless.[38] In practice, for many aquifer gas storage reservoirs there are uncertainties and the gas

[38]Mr. Lounsberry's purported distinction seems to be based on the fact that known amounts of gas are injected to and withdrawn from a gas storage reservoir each year, so the amount of gas in the reservoir should always be known. (Staff Init. Br., pp. 16-17) This may be an ideal situation

volume in place is not accurately known.[39] This is the case at Hillsboro where the gas injection measurement error resulted in uncertainty with respect to the gas volume in place at the Field. This is precisely why it is appropriate to use reservoir simulation techniques and methods like those used in the oil and gas production industry which face uncertainty as to the hydrocarbon volumes in place in a reservoir or production area. Since it is undisputed that there was uncertainty as to the gas volumes in place at Hillsboro, the appropriate techniques to use to obtain the most accurate evaluation of the gas in place possible are the same techniques routinely used by the petroleum industry for the same purposes, namely, reservoir simulation techniques. Again, the overriding point missed by Mr. Lounsberry is that the approach used by IP to determine the gas volumes in place at Hillsboro employed state-of–the-art, industry accepted techniques that provide the best estimate possible given the uncertainty in the gas volumes in the reservoir, regardless of the type of reservoir involved. (IP Ex. 17.6, pp. 4-5)

Finally, to the extent Staff witness Lounsberry's criticism of the use of the reservoir modeling technique is simply that the value it produces is an "estimate", and "estimates" should not be used in setting rates (Staff Init. Br., p. 16), that argument has already been disposed of properly earlier in this Brief.

ii. Fine-Tuning of Model

Staff witness Lounsberry expressed other concerns about the reservoir modeling technique, namely, that IP had "very little data regarding the behavior of the Hillsboro storage

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but it is not the situation at Hillsboro. Given the undisputed fact that there have been injection measurement errors and thus the volume of gas in the Field is no longer known with accounting precision, the reservoir modeling techniques provide the appropriate method for determining the amount of gas in the reservoir and thus the amount by which the inventory has been depleted.

[39]Such uncertainties can arise, for example, from gas leaks in wells and surface facilities or gas losses in the subsurface (migration off structure), as well as gas measurement errors. (IP Ex. 17.6, p. 4)

field once all or even a portion of the gas from the measurement error is replaced", that "until the gas is returned, the model itself will have very little if any data associated with the higher inventory volumes to form a basis for its predictions", and that therefore "in light of the circumstances . . . the use of a reservoir simulation model is not reliable enough to provide data that is determinative and reasonable for ratemaking purposes." (Staff Init. Br., pp. 17-18) These comments show Mr. Lounsberry's fundamental lack of understanding of the reservoir modeling technique and how it was used by IP in determining the gas volumes in place at Hillsboro. Contrary to Mr. Lounsberry's misunderstanding of the facts, the reservoir simulation model for the Hillsboro Field was not used to make predictions about the reservoir's future behavior once it is refilled. Rather, the reservoir model was used to determine the volumes of gas in the Field in 2004, in a situation of depleted inventory, which was done by modeling the performance of the Field in past years using a substantial base of known data, not by projecting the Field's performance in future years. (IP Ex. 17.6, p. 7) Thus, the historic data available for the period subsequent to 1993 (which is only a subset of the data used in developing the model, see IP Ex. 17.6, pp. 6-8) could be used in developing a reservoir model useful in determining the (reduced) volume of gas in place in 2004, before significant reinjections occurred.

More fundamentally, Mr. Lounsberry does not appear to understand how the Hillsboro reservoir model was constructed or what data was used to develop it. The model was constructed on a foundation of a very large amount of known data about the Field, with only the gas injection volumes for the period 1993-1999 in question. The model was used to "solve" for this unknown value based on the large body of known data about the Field, and thereby to determine the amount of gas in the Field given the reconstructed 1993-1999 injection volumes and the known withdrawal volumes over this period. Further, the historic data used to construct

the reservoir model included data from periods when the Field in fact operated at its full design capacities. (IP Ex. 17.1, pp. 14-15; IP Ex. 17.6, pp. 5-8)

In summary, Mr. Lounsberry's concerns about the reservoir simulation analysis are misplaced and uninformed. His concerns fall far short of demonstrating that this technique is not sufficiently reliable to use in determining the volume of gas in place at Hillsboro, and thus the amount by which the gas inventory had been depleted, with sufficient accuracy for ratemaking purposes.

d. "Other Concerns"

i. Constant Correction Factor

Staff witness Lounsberry expressed concern that in determining the gas in place in the Hillsboro reservoir, IP used a "constant correction factor" over the entire period of the turbine metering error, whereas (he contended) the correction factor ought to vary from day to day based on loadings of the plant compressors. (Staff Init. Br., pp. 18-19) This concern was addressed at pages 24-25 of IP's Initial Brief. As shown there, Staff witness Lounsberry's characterization is misplaced. IP used the well chart analysis to develop a range of correction factors (i.e., an average correction factor for each of the four years) and also ran the reservoir simulation model iteratively to find the percentage injection metering error (i.e., the actual gas injection history) that best matched the reservoir data generated by the model. A gas injection history that reflected a 22% correction to the injections recorded by the turbine meters – which corresponded to the correction factor calculated in the well chart analysis for 1994 – produced an in-place volume estimate of 16.8 bcf (and thus an inventory shortfall of 5.8 bcf), which best matched the actual reservoir characteristics per the reservoir model. (IP Ex. 17.1, pp. 11-12; IP Ex. 17.5, pp. 1-2; Rev. IP Ex. 14.1, pp. 17-18; IP Ex. 14.2, pp. 3-4; IP Ex. 14.3, p. 12)

More generally, IP is baffled by Mr. Lounsberry's assertion that "a constant value is not accurate" (Staff Init. Br., p. 19) when one recognizes, as Staff does, that the "constant [correction] value" to which Staff refers was an average of the daily values. To illustrate with an oversimplified but nonetheless relevant hypothetical, the daily correction values for five consecutive days could be 16%, 24%, 19%, 23% and 28% but the average for the period would still be 22%. Finally, as to Staff's example comparing the cost difference between a 5.2 bcf inventory depletion value and a 5.8 bcf inventory depletion value, the amount IP determined was in fact 5.8 bcf, so Staff's example is not meaningful. Staff's example makes only the unexceptional point that a different inventory shortfall amount would have had a different cost.

ii. IP's Plan to Conduct an Additional Study

Staff witness Lounsberry noted that Illinois Power plans to conduct further study in the summer of 2005 to determine if further adjustments to the Hillsboro inventory are appropriate. (Staff Init. Br., p. 20) This concern was addressed at pages 26-27 of IP's Initial Brief. As there noted, IP does not anticipate any significant alteration to the 5.8 bcf inventory shortfall adjustment. Further, if the 5.8 bcf value is biased at all, it is biased to the low side, i.e., the most likely change, if any, in this value would be to *increase* it. (Rev. IP Ex. 14.1, pp. 26-27; IP Ex. 14.3, pp. 12-13) Obviously, AmerenIP would have to wait until a future rate case to have the incremental increase in inventory recognized in rate base.

In summary, as shown above and in IP's Initial Brief, none of the concerns expressed by Staff witness Lounsberry warrants rejection of the 5.8 bcf Hillsboro inventory shortfall depletion amount (1.8 base gas inventory depletion) determined by the Company. Rather, the inventory shortfall value developed by Illinois Power, using state-of-the-art techniques for determining gas volumes in place in a reservoir and based on a wealth of known data about the Hillsboro Field, is

reasonable, reliable and sufficiently accurate to be used for rate base purposes. Accordingly, IP's adjustment of $1,908,000 to its booked December 31, 2003 base gas inventory, reflecting an overall adjustment of $10,367,838 to the 1993 Hillsboro base gas inventory amount included in rate base in Docket 93-0183, should be accepted for purposes of this case. Staff witness Lounsberry's proposed adjustment to IP's base gas inventory value should be rejected.[40]

B. Hillsboro Used and Useful Status

1. When Proper Analyses with Proper Inputs are Employed, Hillsboro is Fully Used and Useful

Virtually all of Staff's arguments concerning its used and useful calculation for Hillsboro, at pages 24-36 of Staff's Initial Brief, have been fully addressed at pages 28-52 of Illinois Power's Initial Brief. As IP demonstrated, the Hillsboro Storage Field should be included in rate base as fully used and useful, and Staff witness Lounsberry's proposed adjustment must be rejected, for numerous reasons, including the following:

- In its current operating status, Hillsboro meets the statutory tests of being "necessary" to meet customer demand and "economically beneficial" in meeting customer demand. Hillsboro's 125,000 mcf/day of peak deliverability provides capacity that likely could not be replaced with additional pipeline firm transportation ("FT") purchases in the current market. Further, even using Mr. Lounsberry's numbers, the gas and pipeline cost savings that Hillsboro produces exceed the revenue requirement to include it in rate base as 100% used and useful. In a rate case decided in 2003, Mr. Lounsberry used a gas cost savings versus revenue requirements analysis to determine whether an existing storage field was used and useful, but he inexplicably *failed* to apply this test in this case. (IP Init. Br., pp. 29-30, 32-36)

- Mr. Lounsberry's analysis is not based on Hillsboro's current operating status, and is therefore inappropriate. Hillsboro has operated at its full, original design peak deliverability rating of 125,000 mcf/day for last winter and this winter

[40]While Staff witness Lounsberry refused to give any credence to IP's Hillsboro inventory depletion amount of 5.8 bcf in the context of the base gas inventory component of rate base, he turned around 180 degrees and treated it as a hard number for purposes of trying to support his proposed Hillsboro used and useful adjustment. (See Staff Init. Br., pp. 26-27.)

(2003-2004 and 2004-2005), a fact Mr. Lounsberry does not dispute, yet his used and useful analysis fails to fully reflect this fact.[41] Similarly, his analysis incorporates historic amounts of gas cycled from the Field and does not reflect its current cycling capability.[42] (*Id*., pp. 30, 32)

- The used and useful analysis that Mr. Lounsberry developed for this case is unreasonably stringent. To be found 100% used and useful under his test, a storage field would have to operate at its full peak day deliverability and cycle its full, maximum working gas volume in every year, an eventuality that is inconsistent with, and unlikely in the context of, actual load and operating conditions. Stated differently, even if Hillsboro had cycled 95% of its working gas volume in each and every year, it would not be fully used and useful under the test Mr. Lounsberry developed for this case. (*Id*., pp. 47-49)

- The three-year period that Mr. Lounsberry selected for his used and useful analysis is inconsistent with Commission precedent. Assuming using a three-year period is appropriate at all, Commission orders clearly show that it should center on the year the new rates go into effect (i.e., the year of the rate order). In this case that means the three-year period should be 2003-2004 through 2005-2006, not 2001-2002 through 2003-2004 as used by Mr. Lounsberry. Use of the correct three-year period would recognize the current operating condition of Hillsboro and generate a higher used and useful figure (even using other components of his flawed methodology) than Mr. Lounsberry calculated. (*Id*., pp. 30, 38-42)

- The values Mr. Lounsberry used for replacement pipeline capacity for Hillsboro were inappropriate and too low. Specifically, he used the capacity price for a pipeline that runs solely within IP's service area and includes no costs for transporting gas from the gas producing regions to IP's service area. On this basis alone, the replacement FT price he used was woefully understated. Further, he erroneously assumed that Hillsboro's capacity could be replaced solely by capacity on Natural Gas Pipe Line Company of America ("NGPL") when in fact (i) Hillsboro displaces pipeline capacity on both NGPL (serving the Metro-East

[41]Since the record in this case has not been marked "Heard and Taken", IP would be pleased to provide for the record evidence demonstrating that during the 2004-2005 winter, as was the case in the 2003-2004 winter (Rev. IP Ex. 14.1, pp. 18-19), Hillsboro's 125,000 mcf/day peak deliverability capability has been confirmed by testing, if the ALJ or the Commission would find that information a useful addition to the record.

[42]Staff's Initial Brief, pp. 26-27, states that using IP's measurement error of 5.8 bcf, the working gas volume in Hillsboro of 1.8 bcf (i.e., 7.6 bcf minus 5.8 bcf) is less than the 3.1 bcf working gas volume prior to expansion of the Field. This calculation is erroneous because 1.8 bcf of the 5.8 bcf inventory depletion was base gas and 4.0 bcf was working gas. Further, as of the start of the 2004-2005 winter, IP had restored (reinjected) the 1.8 bcf of base gas and restored the working gas inventory to 4.6 bcf. (Rev. IP Ex. 13.1, pp. 5, 7) Mr. Lounsberry's used and useful analysis does not reflect this fact.

area) and Panhandle Eastern Pipeline Company ("PEPL") (serving the Decatur area) and (ii) in any event there is not enough incremental available capacity on NGPL to entirely replace Hillsboro's capacity. (*Id*., pp. 30, 42-45)

- The values Mr. Lounsberry used to calculate seasonal gas cost savings in his analysis were outdated and inappropriate. He used historic gas prices that were up to five years old and not representative of current market conditions. Current price information based on New York Mercantile Exchange ("NYMEX") transactions provides a more accurate assessment of the seasonal gas cost savings that Hillsboro currently provides. (*Id*., pp. 30, 45-47)

- Although the underlying premise of Mr. Lounsberry's proposed used and useful adjustment is that Hillsboro is not operating at the levels represented in Docket 93-0183, his analysis fails to measure the cost savings benefits Hillsboro provides currently against the cost savings benefits it was expected to produce in Docket 93-0183. If the distribution of cost savings benefits represented in Docket 93-0183 (i.e., 93% from displacing pipeline FT and 7% from seasonal cost savings) were used in Mr. Lounsberry's analysis, Hillsboro would calculate to be 96.8% used and useful. Further, his used and useful methodology inextricably measures not just Hillsboro's reduced operating levels but also changes in gas market economics since 1993. IP should not be penalized for the latter impacts, but it is under Mr. Lounsberry's methodology. (*Id*., pp. 31, 50-52)

In the remainder of this Section II.B we respond to assertions in Staff's Initial Brief that were not fully addressed in Illinois Power's Initial Brief.

2. Mr. Lounsberry's Calculation of the Hillsboro Used and Useful Percentage Is Flawed and Inappropriate

Staff states at pages 27-28 of its Initial Brief that Mr. Lounsberry based his used and useful analysis on the peak day capacity and seasonal price savings benefits of Hillsboro because "those components . . . matched the information that the Company provided to the Commission in Docket 93-0183 to support the decision to expand the Hillsboro storage field." As shown above and at pages 50-51 of IP's Initial Brief, this assertion is inaccurate, because Mr. Lounsberry's analysis does not use the peak day capacity and seasonal price savings benefits of Hillsboro as presented in Docket 93-0183. Specifically, in Docket 93-0183, 93% of the benefits of the Hillsboro expansion were to come from savings on pipeline charges while 7% were to

come from seasonal gas cost savings. (See IP Init. Br., p. 51) Under Mr. Lounsberry's methodology, in contrast, 36% of the benefits come from savings on pipeline charges while 64% come from seasonal gas cost savings. (Staff Sched. 17.01) The difference in these values is largely due to the reduction in pipeline FT prices since 1993, which Mr. Lounsberry recognized (Staff Ex. 17.0R, p. 35), as well as to his overstatement of seasonal gas price differences. Mr. Lounsberry's maneuver of using a different allocation of the benefits than was presented in Docket 93-0183 was critical to his analysis producing a low used and useful percentage – Hillsboro is operating at its full peak day capacity (and did so even during part of the outdated three-year period selected by Mr. Lounsberry), but his assignment of only 36% of the overall benefits of Hillsboro to peak day capacity in his used and useful calculation minimizes the impact of Hillsboro operating at or near its design peak day deliverability.

a. Peak Day Value

As shown at pages 42-45 of IP's Initial Brief, the value Staff witness Lounsberry selected for the cost of pipeline FT capacity that Hillsboro's peak day deliverability displaces is seriously understated for several reasons, including (i) he used the price from a recent IP contract with NGPL that is only for an NGPL lateral running from Centralia to the Metro East area, which includes no pipeline costs for transporting gas from the gas producing regions in the Gulf Coast or Mid-Continent (Texas, Oklahoma and Kansas) areas to IP's service area; and (ii) he failed to recognize that Hillsboro's capacity serves both the Metro East and the Decatur areas, that Hillsboro's capacity displaces pipeline capacity on both NGPL and PEPL, and that to provide the same capacity to customers that Hillsboro provides, IP would have to acquire FT capacity on both NGPL and PEPL. As a result, the Hillsboro peak day capacity benefit that Mr. Lounsberry

calculated is understated by over $7.5 million or some 60%. (See capacity benefit figures reported on p. 29 of Staff's Initial Brief and Rev. IP Ex. 13.1, p. 12)

In its Brief, Staff offers no real defense for the fact that the pipeline price Mr. Lounsberry used was for an NGPL lateral running entirely within IP's service area and includes no costs for transporting gas from the producing regions to IP's service area. It is obvious that Staff witness Lounsberry was completely unaware of this fact until it was pointed out to him in IP's surrebuttal testimony (Rev. IP Ex. 13.9, p. 10), yet he refuses to acknowledge his mistake. Instead, Staff makes the baseless assertion that "Staff used the most relevant example of IP purchasing a significant amount of capacity."[43] (Staff Init. Br., p. 31) Mr. Lounsberry's Schedule 7.05 shows that he obtained his pipeline FT price from an IP data request response in another docket (IP's PGA case for 2003), and not through discovery conducted in this case. (See also Staff Ex. 17.0R, p. 31) Obviously, in responding to Mr. Lounsberry's data requests in another docket that were for another purpose, IP did not have a need to indicate that this particular NGPL contract price was only for an in-state lateral. The price reported in the data request response in another case apparently jumped out at Mr. Lounsberry as being low, and he grabbed it without question to use in his used and useful analysis in this case, where (as described above), it would produce a lower used and useful percentages given the methodology he devised. Had Mr. Lounsberry conducted proper discovery and investigation in *this* case, he might have been apprised of the particulars of this NGPL contract, but he did not do so.[44]

[43]In fact, in re-doing Mr. Lounsberry's calculation, IP used the contract prices from its most recent negotiations with NGPL and PEPL for FT capacity. (Rev. IP Ex. 13.1, p. 12)

[44]After receiving IP's surrebuttal testimony in this case, Mr. Lounsberry sent IP numerous data requests about the 2003 NGPL lateral contract he had used in order to obtain the particulars showing that this contract does not in fact include the pipeline costs to transport gas from the producing regions to IP's service area.

Staff does attempt to justify the peak day capacity value Mr. Lounsberry used in this case by contending that it compares favorably to an estimate of the annual value of a 25,000 mcf/day increment of capacity on IP's system that Mr. Lounsberry presented in another case. (Staff Init. Br., p. 30) Although Staff and Mr. Lounsberry characterize this amount as an "annual value", in fact it was based on a short-term, three-month contract. (Rev. IP Ex. 13.9, p. 14) Further, that contract was from IP's PGA case for 2001 (Docket 01-0701); pipeline FT prices are much higher today than in 2001 because the pipelines are fully or nearly fully subscribed, a fact that Staff does not attempt to refute. (Rev. IP Ex. 13.9, pp. 11-12, 14) Moreover, in Docket 01-0701, Mr. Lounsberry recommended a prudence disallowance based on IP's reduction of the peak deliverability rating of its Shanghai Storage Field by 25,000 mcf/day. However, the Commission rejected Mr. Lounsberry's recommendation and found that IP had acted prudently in reducing the peak day rating of Shanghai. (See Order in Docket 01-0701 (Feb. 19, 2004), pp. 7, 25) Because the Commission rejected Mr. Lounsberry's proposed prudence disallowance on its merits, the Commission never passed on his estimate of the additional pipeline costs IP had incurred due to the Shanghai deliverability reduction, i.e., on his estimate of the value of a 25,000 mcf/day increment of capacity on IP's system. Thus, that estimate remains nothing more than an untested assertion he made in a prior case. All that Mr. Lounsberry has done here is attempt to bolster the peak day capacity value he used in this case by citing his own untested and unapproved prior testimony from an earlier case.

Finally, Staff argues that in re-doing Mr. Lounsberry's used and useful calculation, Illinois Power overstated the capacity value of Hillsboro because IP used an average FT price based on its most recent contract negotiations with both NGPL and PEPL, but the PEPL capacity is higher priced than the NGPL capacity. (Staff Init. Br., pp. 29-30) Staff continues to miss the

point that the capacity of the Hillsboro Field serves two distinct areas, one primarily served by NGPL and the other primarily served by PEPL, so the price of replacement capacity on both of these pipelines into these areas must be taken into account. (See IP Init. Br., p. 44) Staff does not dispute this fact, but rather acknowledges it (Staff Init. Br., p. 29); yet Staff continues to fail to reflect this fact in its analysis. It would not be possible to replace the capacity of the Hillsboro Field only with NGPL capacity and still serve the geographic areas of IP's service area that are served by the peak day capacity of the Hillsboro Field. (Rev. IP Ex. 13.9, p. 11) Staff's analysis fails to comprehend that reality, and therefore is deficient.

b. Seasonal Value

A number of deficiencies in Staff witness Lounsberry's calculation of the seasonal gas cost savings component of his used and useful analysis were described at pages 45-48 of Illinois Power's Initial Brief. IP emphasizes that the historic gas prices used by Mr. Lounsberry, which were up to five years old, are not representative of current and more recent market prices, and thus his calculation does not reasonably depict the current seasonal gas cost savings available from storage field operations. Mr. Lounsberry himself testified that "many changes have occurred over the past ten years" in the gas markets (Staff Ex. 17.0R, p. 35), yet he apparently did not consider whether such changes have occurred over the five-year period he used in his analysis. As Illinois Power pointed out, due to the recent installation of almost 200,000 mW of gas-fired electric generation in the U.S., which has increased the demand for gas in the summer, there are now periods in which gas prices in the winter heating season are not significantly different than – and in fact at times are lower than – prices in the summer. (Rev. IP Ex. 13.9, p. 9) As a result, the seasonal gas cost savings from Hillsboro that Mr. Lounsberry calculated are overstated; the seasonal gas cost savings that IP calculated, which are about 70% of the amount

that Mr. Lounsberry calculated, are much more representative of current and recent gas price conditions. (Both values are reported at p. 32 of Staff's Initial Brief.)[45]

Another flaw in Staff witness Lounsberry's seasonal savings analysis is that he applied the monthly price differences he calculated using his five-year historic period (1999-2000 to 2003-2004) to the amounts withdrawn from Hillsboro storage in each month of the 1993-1994 winter season. (Staff Init. Br., pp. 31-32) Given that monthly withdrawal patterns as well as total withdrawal can vary from winter season to winter season based on temperature and load differences and other factors (see Rev. IP Ex. 13.1, p. 8; Rev. IP Ex. 14.1, p. 6), Mr. Lounsberry presented no evidence to show that the 1993-1994 winter season was typical or "normal". Further, the application of price difference data from 1999-2000 through 2003-2004 to monthly withdrawal volumes for 1993-1994 is an unjustified mismatch, since the actual cost of working gas in storage versus current commodity prices during the winter could influence the extent to which storage withdrawals are used to serve load in a given month.

Staff also contends that IP cannot validly criticize Staff's calculation because Staff asked IP in discovery to provide any calculations of the savings that have resulted from operation of its storage fields over the past five years and IP did not provide any such calculations. (Staff Init. Br., p. 33) However, there was no reason for IP to have performed such calculations, and Staff does not supply any reasons why IP should have done so. In any event Staff's point does not

[45]In case the ALJ or the Commission is wondering why IP is arguing for a lower seasonal gas cost savings value for Hillsboro, it is important to remember how the seasonal gas cost savings and peak capacity savings values are used in Mr. Lounsberry's used and useful analysis. These values are not used to directly calculate the used and useful percentage of the Field, but rather to calculate the percentages of the total benefits of the Field that come from peak day savings and seasonal gas cost savings. By generating a higher (but unrealistic) seasonal gas cost savings figure, Mr. Lounsberry increased the percentage of the total benefits derived from seasonal gas cost savings and decreased the percentage resulting from peak day capacity savings, and thereby produced a lower used and useful percentage.

address the fact that, for the reasons discussed above and in IP's Initial Brief, Staff's use of historic gas price data was inappropriate. That is, even if IP had performed such historical calculations, they would not be relevant. Similarly, Staff's final assertion that "Staff's seasonal savings comparison is the only value provided that is based upon the actual price of gas that the Company experienced for gas inventory and winter purchases" (Staff Init. Br., p. 33) proves nothing because Staff's seasonal comparison was based on stale and unrepresentative price data; the seasonal gas cost savings calculation should be based on current price data. In the end, the only justification Staff witness Lounsberry provided for using five years of historic price data for the seasonal gas cost savings calculation boils down to "because I say so."[46]

c. Three-Year Period

Illinois Power responded to Staff's arguments concerning the three-year period Mr. Lounsberry selected for his used and useful analysis at pages 38-42 of IP's Initial Brief. As shown there, not only do the four prior Commission orders cited by Mr. Lounsberry (and in Staff's Brief) lead to the conclusion that the three-year period used in this case should be 2003-2004 through 2005-2006, but a subsequent order (not cited in Mr. Lounsberry's testimony or Staff's Brief), in which the Commission directly addressed and decided the issue of what three-year period should be employed in a used and useful analysis, specifically concluded that the appropriate three-year period should center on the year the new rates to be approved in the rate case go into effect. *Commonwealth Edison Co.*, Docket 94-0065 (Jan. 9, 1995), 158 P.U.R. 4th 458, 1995 WL 45969 (discussed and quoted at pages 40-41 of IP's Initial Brief). In the instant

[46]Moreover, Mr. Lounsberry's use of a five-year historic period to calculate the seasonal price differences conflicts with his decision to use a three-year period for the overall used and useful calculation.

case, that three-year period would be 2003-2004, 2004-2005 and 2005-2006, not the earlier three-year period employed by Mr. Lounsberry.

Further, in contrast to Staff's assertions that the used and useful calculation should be based on actual historical data (Staff Init. Br., pp. 33, 35), the Commission stated in the *Commonwealth Edison* Order, "The Commission believes it is reasonable to employ a used and useful test period that provides a more prospective view of whether [the facilities in question] are used and useful." (See IP Init. Br., p. 41)

AmerenIP finds one other assertion in this subsection of Staff's Initial Brief to be suspect:

> Further, this docket can be distinguished from past cases involving a used and useful analysis where the issue was whether to place a new facility into base rates. In this proceeding, the Hillsboro storage field is already included in base rates and was previously found used and useful. Unlike those prior cases, **the unique issue presented here is the extent to which subsequent operations have rendered an existing facility less than 100% used and useful**. This appears to be a case of first impression. **Staff has been unable to identify a previous docket where the Commission faced this situation.** (Staff Init. Br., p. 34; emphasis supplied)

In fact, however, in a rate case decided less than 18 months ago, the Commission – and Mr. Lounsberry in particular – dealt with *exactly* this situation. *Central Illinois Public Service Co. and Union Electric Co.*, Dockets 02-0798, 03-0008 & 03-0009 (Cons.) (Oct. 22, 2003) In *that* case, which was discussed and quoted at pages 34-35 of IP's Initial Brief, Mr. Lounsberry recommended that the Commission should find that an existing storage field, the Belle Gent storage field, was no longer used and useful under Sections 9-211 and 9-212 of the Public Utilities Act (220 ILCS 5/9-211, 9-212) and should order that it be retired. Mr. Lounsberry argued that the Belle Gent storage field was no longer used and useful because the annual revenue requirement to include it in rate base was greater than the annual cost savings the storage

field produced for customers. (See Order in Dockets 02-0798 et al., pp. 26-27 (quoted at p. 35 of IP's Initial Brief.) The Commission agreed with Mr. Lounsberry's recommendation in that case.

In contrast, in *this case* – which also involves a storage field that was previously fully used and useful but now (Staff contends) because of its subsequent operations is no longer used and useful – Staff witness Lounsberry *did not* present the same type of used and useful analysis that he presented in Dockets 02-0798 et al. Moreover, when IP witness Kevin Shipp presented this type of analysis in his rebuttal testimony – which showed that Hillsboro is fully used and useful – Mr. Lounsberry *did not respond* to this portion of Mr. Shipp's testimony in Mr. Lounsberry's own rebuttal testimony (although he did respond to virtually every other word of the rebuttal testimonies of IP witnesses Shipp, Hower and Hood-Kemppainen), or *even acknowledge that Mr. Shipp had presented this analysis.* In Mr. Shipp's surrebuttal testimony responding to Mr. Lounsberry's rebuttal, Mr. Shipp explicitly pointed out that Mr. Lounsberry had failed to respond to Mr. Shipp's analysis comparing Hillsboro's revenue requirement to the gas and pipeline cost savings it produced:

> Further, Mr. Lounsberry has not responded to the revenue requirements analysis I presented in my rebuttal testimony which showed that even at its current level of operation in which it is not cycling the full 7.6 bcf of working gas inventory on an annual basis, the peak day and seasonal cost savings produced by the Hillsboro Field exceed the revenue requirement associated with having the Field fully included in rate base, and thus it is 100% used and useful. As I show in this testimony, even using Mr. Lounsberry's calculation of the reduced level of seasonal gas cost savings produced by Hillsboro (which the Company disputes), the savings produced by the Hillsboro Field exceed its full revenue requirement. Therefore, there is no justification for a used and useful adjustment. (Rev. IP Ex. 13.9, p. 3)

Yet despite being confronted again, in Mr. Shipp's surrebuttal, with the same type of economic benefits analysis Mr. Lounsberry had presented in Dockets 02-0798 et al. in support of his position that an existing storage field was no longer used and useful, Staff, in its Initial Brief,

does not respond to these analyses that Mr. Shipp presented or even acknowledge that they are part of the evidence in this case.

In the face of Staff's assertion that "Staff has been unable to identify a previous docket where the Commission faced this situation", AmerenIP finds it extremely odd that Mr. Lounsberry failed to "identify" Dockets 02-0798, 03-0008 & 03-0009 (Cons.) and his testimony in that case.[47] Certainly, "Staff" knew about this case – it is cited at page 55 of Staff's Initial Brief (and was cited in Staff witness Lazare's direct testimony) on another point. It was also cited in the testimonies of Staff witnesses Freetly (Staff Ex. 4.0, pp. 34, 41, 43) and McNally (Staff Ex. 5.0, pp. 5, 8) in this case.

The Commission should recognize that the same test, presented by Staff, that the Commission accepted in Dockets 02-0798 et al. to show that an existing storage field is no longer used and useful, demonstrates in *this* case that the Hillsboro Storage Field *is* used and useful. This is the case even using only Staff-generated or stipulated values to calculate the cost savings Hillsboro has actually, historically provided at its reduced levels of operation and its annual revenue requirement. (See Rev. IP Ex. 13.9, pp. 4-6) Further, this analysis stands unresponded to and unrebutted by Staff in this case.

d. Used and Useful Calculation

This subsection of Staff's Initial Brief (p. 35) merely summarizes some of Mr. Lounsberry's intermediate calculations.

[47] In his rebuttal testimony, Mr. Lounsberry made a statement similar to the quoted statement from Staff's Initial Brief: "[M]y recommendation for the Hillsboro storage field involves an asset that was already found fully used and useful, but based upon its operation, it is no longer used and useful. **To the best of my knowledge, the Commission has not faced this situation in any prior case.**" (Staff Ex. 17.0R, p. 28 (emphasis supplied))

e. Alternative Used and Useful Calculations

This subsection of Staff's Initial Brief (pp. 35-36) is fully addressed at pages 50-52 of Illinois Power's Initial Brief.

3. Mr. Lounsberry's "Overall Storage Concerns" Provide No Support for His Proposed Used and Useful Adjustment

Most of Staff's assertions in the "Overall Storage Concerns" section of its Initial Brief (pp. 36-51) were responded to and refuted at pages 52-63 of IP's Initial Brief. In addition, several of Mr. Lounsberry's "Overall Storage Concerns" have been further addressed in Section II.A.2.c of this Reply Brief, above, in responding to Staff's reliance on these concerns to support its belated prudence argument relating to the Hillsboro base gas adjustment. As shown in IP's Initial Brief, none of Staff witness Lounsberry's "overall storage concerns" contributed to the turbine injection metering error that resulted in depletion of the Hillsboro gas inventory and thus its declining deliverability. Further, as described in Section II.B of IP's Initial Brief and Section II.A.2.b of this Reply Brief, the record shows that IP aggressively pursued investigation of the cause of the Hillsboro deliverability decline and devoted significant expense to this effort.

a. Reduction in Peak Day Capacity

Staff's "overall storage concern" relating to the temporary reductions of peak day deliverability that occurred at the Shanghai and Hillsboro Storage Fields was addressed at pages 54-55 of IP's Initial Brief.[48] Staff acknowledges that "It is true that storage well and field deliverability declines are not uncommon in the industry" (Staff Init. Br., p. 38), but Staff

[48]As pointed out at page 55 of IP's Initial Brief, in Docket 01-0701, Mr. Lounsberry recommended a prudence disallowance due to the reduction in the capacity of the Shanghai Field (which was restored after one year), but the Commission rejected his arguments and concluded that IP had acted reasonably and prudently with respect to its decision to reduce the peak day deliverability of Shanghai. The reduction in Hillsboro's peak day capacity has of course also been restored, as of the start of the 2003-2004 winter season. (Rev. IP Ex. 13.1, pp. 6-7)

nonetheless continues to contend that some adverse inference should be drawn concerning IP's storage field management (even though the Commission has already declined to do so with respect to the temporary reduction in Shanghai's peak deliverability). Staff contends that the temporary peak day capacity reductions at Shanghai and Hillsboro "occurred in large part due to the manner that the Company operates, reviews and oversees its storage operations and its ability, or inability, to properly conduct root cause analyses of problems at its storage fields." (Staff Init. Br., p. 38) However, neither Staff's Brief nor Mr. Lounsberry's testimony demonstrated any causal connection between any of the areas of storage field management about which Mr. Lounsberry expressed concern and the temporary peak capacity reductions at Shanghai and Hillsboro.

At page 37, Staff states that "[t]he Company's reduction of the peak day ratings at its two largest storage fields reflects negatively on its management or oversight over those facilities," citing to Staff Exhibit 7.0R, page 32 (Mr. Lounsberry's direct testimony). That is not, however, what Mr. Lounsberry said in his testimony. What he said was: "the fact that IP had to reduce the ratings at its two largest storage fields is not a positive indication of its management or oversight over those facilities." (Staff Ex. 7.0, p. 32) The words Mr. Lounsberry used in his testimony were carefully chosen to create a negative implication without actually making a negative statement. (IP Ex. 17.6, p. 10) In any event, if "storage well and field deliverability declines are not uncommon in the industry", as Mr. Lounsberry testified (Staff Ex. 17.0R, p. 37) and Staff states in its Brief (p. 38), then the fact that IP temporarily needed to reduce peak day ratings should not be taken as an indication of poor management or oversight. (IP Ex. 17.6, p. 11)

b. Manpower

Mr. Lounsberry's "Overall Storage Concern" relating to the reduction in the number of supervisors at IP's storage fields over the period 1991-2000 was fully addressed and refuted at pages 55-56 of IP's Initial Brief. Staff asserts that "Staff considers the reduction in management oversight at its storage fields a factor in the Company's inability to conduct thorough root case analysis and was thus a factor in its decision to reduce the peak day capacity at two of its largest storage fields" (Staff Init. Br., p. 39), but Staff provides no *evidence* of any relationship between the elimination of three supervisor positions over a ten-year period and the temporary reductions of the Shanghai and Hillsboro peak day capacities. Again, the Commission has already effectively rejected this argument with respect to the Shanghai Storage Field, in the 2001 PGA reconciliation (Docket 01-0701).

c. Capital Expenditures

Mr. Lounsberry's "Overall Storage Concern" relating to Illinois Power's budgeted capital expenditures for its storage fields was addressed and refuted at pages 57-58 of IP's Initial Brief. Staff admits that it was not in possession of detailed information about IP's budgeting procedures for its gas storage operations (although nothing prevented Staff from submitting data requests on this topic) (Staff Init. Br., p. 41), yet Staff asserts that the capital budget history indicates that IP "was being reactive rather than proactive when determining when to make upgrades or improvements at its storage fields." (*Id*., pp. 40, 41) In fact, Illinois Power has been proactive in identifying and correcting problems at all of its storage fields, and has initiated numerous projects to avoid potential problems while trying to ensure maximum deliverability ratings. (Rev. IP Ex. 13.1, p. 19) Illinois Power submitted in evidence detailed lists of (i) its storage field capital projects for the years 1995-2004 (i.e., since IP's last gas rate case), by storage field, and

(ii) the studies it conducted for the storage fields in the years 1998-2003. (IP Exs. 13.6-13.7) Staff was "in possession" of this information, since it was in the record, but provided absolutely no evaluation or analysis of the storage field capital projects and other studies the Company *did* implement, whether they were adequate or inadequate, timely or untimely, or identify any other projects that IP should have undertaken but did not. Thus, Staff's assertion that IP was "reactive not proactive" is nothing more than a generalized assertion that is completely divorced from any basis in the facts presented in the case.

Staff also cites an unattributed hearsay statement to the effect that IP has been reluctant to spend money on projects that are a "pass through to the PGA." (Staff Init. Br., pp. 40-41) However, the statement is belied by the extensive list of storage field capital improvement projects that IP has in fact carried out since its last rate order, and to which Mr. Lounsberry did not respond. Examination of the lists of capital projects on IP Exhibit 13.6 and storage field studies on IP Exhibit 13.7 shows that they were not projects whose costs IP could recover through the PGA, but rather would have to wait till its next rate case to commence recovery. Further, as Company witness Mr. Shipp testified, in determining whether to undertake discretionary capital projects (i.e., projects that are not necessary due to regulatory or safety requirements, to support new customer business or to replace failed or obsolete equipment), IP evaluates whether the project will result in a lower overall cost of service, not just on whether or not the costs of the project will impact the PGA. (Rev. IP Ex. 13.9, p. 17)

Mr. Lounsberry's basic concern, that "IP's capital expenditure levels have been reduced over the same time period that the Company experienced problems at its two largest storage fields" (Staff Init. Br., p. 41), is misplaced as a matter of time. Mr. Lounsberry's observation was that the capital expenditure amounts for the years 2002-2004 were significantly lower than

for 2000 or 2001, and more generally, lower than over the period 1995-2001. (*Id*., p. 40) But the record in this case shows that the problems at the Hillsboro Field (i.e., the turbine injection metering error) occurred over the period *1993-1999*; and Shanghai's capacity reduction occurred in *2001*.[49] Thus, the "problems" at the two storage fields occurred during the period of *higher* capital expenditures that Mr. Lounsberry held up as the baseline.

In any event, the Commission has already rejected, in Docket 01-0701, Staff's efforts to connect purportedly inadequate capital expenditures to the temporary reduction in peak capacity at the Shanghai Field; and the record in *this* case shows that IP's investigation and resolution of the cause of the Hillsboro deliverability decline were in no way constrained by inadequate capital (or other) resources. As Illinois Power witnesses Hood and Kemppainen testified:

> The turbine metering injection error and the failure to discover the error sooner did not result from the failure to undertake any particular capital projects or from the level of capital expenditures generally. As we and Mr. Hower have described in our rebuttal testimonies, Illinois Power devoted considerable internal and external resources to determining the source of the Hillsboro performance decline that is the basis for Mr. Lounsberry's proposed used and useful adjustment. (IP Ex. 14.3, p. 14)

Staff has made no showing to contradict this.

d. Identification of Problems

i. December 2000 Hillsboro Incident

Illinois Power fully addressed and refuted Mr. Lounsberry's concerns relating to the root cause analysis of the December 2000 Hillsboro incident at pages 58-60 of IP's Initial Brief. IP emphasizes that based on the investigation it conducted of that incident (including the

[49]Moreover, the summary of Staff's evidence relating to the Shanghai peak capacity reduction in the Commission's Order in Docket 01-0701 shows that the IP management actions and decisions that Staff contended led to the peak capacity reduction for 2001 occurred over a period from the mid-1990s to 2000, again a period in which Mr. Lounsberry believes the levels of IP's storage field capital expenditures were adequate. (See Order in Docket 01-0701, pp. 8-11)

investigation conducted by the outside engineering firm that IP retained for that purposes, Packer Engineering), IP implemented significant corrective actions designed to prevent a recurrence. These corrective actions were detailed in IP's testimony in this case. (Rev. IP Ex. 14.1, pp. 31-32) Neither Mr. Lounsberry, in his rebuttal testimony, nor Staff, in its Initial Brief, made any mention of these corrective actions, let alone criticize them as incomplete, inadequate or misdirected. Having offered no criticisms of the sufficiency of IP's corrective actions in response to the December 2000 Hillsboro incident, there is no basis for Staff to claim that IP's investigation of the causes of the incident was inadequate. Finally, nothing in Staff's discussion of IP's investigation of the causes of the December 2000 Hillsboro incident provides any basis to cast doubt on the sufficiency and diligence of IP's investigation into the causes of the Hillsboro Storage Field deliverability decline, or to question the sufficiency of the resources and attention that IP devoted to that problem. (IP Ex. 14.3, p. 16)

ii. Hillsboro Storage Field Withdrawal Metering

Illinois Power addressed Mr. Lounsberry's concerns relating to the Hillsboro Storage Field metering at pages 60-61 of IP's Initial Brief. In addition, in Section II.A.2.c of this Reply Brief, above, IP has responded in detail to, and refuted, Staff's specific discussion under the caption "Hillsboro Storage Field Withdrawal Metering" at pages 44-48 of Staff's Initial Brief. IP emphasizes again that the problem with the orifice meter on the south secondary withdrawal run at Hillsboro was not caused by a lack of maintenance (as Staff would like to depict things); and that neither the incorrectly-labeled size of the orifice opening on this meter nor the level of maintenance on the orifice withdrawal meters was the cause of the deliverability decline experienced at Hillsboro. (IP Ex. 14.3, pp. 17-18)

iii. Hillsboro Injection Metering Review

Staff contends that IP "initially made a significant error" when reviewing the Hillsboro injection metering error, in that IP initially assumed that the turbine injection metering error and the withdrawal measurement error due to the incorrectly labeled orifice plate opening on one of the four withdrawal meters were approximately offsetting. Staff contends this was an instance of IP "not fully investigating a problem at its storage facilities." (Staff Init. Br., pp. 48-49) Staff's characterization of the facts is incomplete and misleading. Staff would have the Commission believe that IP stopped investigating the cause of the Hillsboro deliverability decline, but exactly the opposite is true, as IP described at pages 7-10 of our Initial Brief and in Sections II.A.2.b.ii-iv of this Reply Brief. Further, at the time that Staff is referring to, IP had discovered the turbine injection measurement error that was being caused by the operation of the Hillsboro compressors and had implemented corrective actions to eliminate it – so the actual cause of the Hillsboro deliverability decline had at that point been addressed.[50]

iv. Gas Dispatch Tracking

At pages 62-63 of our Initial Brief and in Section II.A.2.c of this Reply Brief, above, Illinois Power has fully responded to and refuted Staff's arguments under the caption "Gas Dispatch Tracking" at pages 50-51 of Staff's Initial Brief.

e. Staff's Conclusion

As shown in Illinois Power's responses to Staff's "Overall Storage Concerns" in our Initial Brief and this Reply Brief, there is no causal (or other) connection between Staff's

[50]Staff also faults IP for not having used well chart data at the time to determine that the turbine injection metering error and the withdrawal metering error were not offsetting. (Staff Init. Br., p. 49) This criticism is puzzling given that Staff's position with respect to IP's development of the amount of the Hillsboro inventory depletion seems to be that the well chart approach was inaccurate and unreliable.

"Overall Storage Concerns" and the decline in deliverability that was experienced at the Hillsboro Field. Nor was Illinois Power's pursuit, discovery and resolution of the cause of the Hillsboro deliverability decline in any way impacted or limited by any of Mr. Lounsberry's "Overall Storage Concerns." Therefore, Staff's concluding assertion in this discussion, that "IP should be held accountable for its actions, or lack thereof, and the Hillsboro storage field should be found to be only 53.94% used and useful in this proceeding" (Staff Init. Br., p. 52), is baseless and must be rejected.

f. Efficiency of Storage Field Operations

Staff takes issue with two analyses that Illinois Power presented for the purpose of depicting the overall efficiency of its operation of the Hillsboro Storage Field relative to other storage fields. (Staff Init. Br., pp. 52-53) Illinois Power presented these analyses in response to generalized assertions by Mr. Lounsberry that IP was not fulfilling its obligation to provide "adequate, efficient, reliable, environmentally safe and least-cost public utility services" (see, e.g., Staff Ex. 7.0, p. 22), and not in response to the specific events involving the Hillsboro Field that are at issue in this case. Nevertheless, the analyses that IP presented show that Hillsboro has been operated efficiently relative to other storage fields, Staff's criticisms notwithstanding.

IP Exhibits 17.2 and 17.3 ranked 41 U.S. gas aquifer storage reservoirs in terms of the ratio of working gas to total gas in storage.[51] A higher ratio of working gas to total gas indicates greater efficiency, since a larger portion of the total gas inventory is available to cycle (i.e., to withdraw for delivery to customers). (IP Ex. 17.1, p. 19) IP Exhibit 17.2 ranked Hillsboro using its full design working gas inventory of 7.6 bcf and showed that Hillsboro ranked in the top third

[51]The list of reservoirs and the operating data was taken from a database compiled by the International Gas Union and presented at a 2003 conference; the data was not selected by Illinois Power. (See IP Ex. 17.1, p. 19)

of the U.S. aquifer storage reservoirs listed. (IP's Shanghai Storage Field ranked just slightly below Hillsboro in this comparison.) IP Exhibit 17.3 ranked Hillsboro using the working gas volume of 2.6 bcf that was cycled in 2003-2003. Although this exhibit showed, of course, that Hillsboro fell in the rankings, Hillsboro still ranked above nine other aquifer gas storage fields in Illinois and Indiana based on this measure of efficiency. (*Id*., pp. 19-20)

Staff's criticism of this analysis is that (Mr. Lounsberry contended) the ratio of working gas to base gas is largely dependent on the geology and physical characteristics of the reservoir itself, and not on the utility's actions. (Staff Init. Br., p. 52) However, IP Exhibits 17.2 and 17.3 took geography and physical characteristics into account. Specifically (i) only aquifer storage reservoirs (of which Hillsboro is one) were listed on these exhibits, and (ii) 63% of the reservoirs listed are located in Illinois and Indiana.[52] (IP Ex. 17.6, p. 8) Thus, any differences in the geology and physical characteristics of the 41 storage reservoirs listed on the exhibits have only a minor impact on the performance comparison shown by the exhibits, given the geographic proximity of the listed reservoirs. (*Id*.) Accordingly, the fact that IP's aquifer storage fields place as high as they do on this comparison is indeed indicative of the Company operating its fields in an efficient and effective manner. (*Id*.)

Mr. Lounsberry's other criticism of these exhibits was that Nicor, which operates the top-rated storage field in Illinois per IP Exhibit 17.2, also operates a number of fields ranked near the bottom of the list, yet this utility's overall storage management should not vary significantly from field to field. (Staff Init. Br., p. 53) However, Mr. Lounsberry's assertion is not a necessary inference. With its large number of gas storage reservoirs, Nicor has the ability to

[52]Examination of the exhibits shows that 18 of the 41 reservoirs are located in Illinois and seven are located in Indiana. Additionally, eight others are located in Iowa. Only eight of the 41 aquifer gas storage reservoirs listed are located outside this three-state area centered on Illinois.

employ variations in its overall storage operation strategy from field to field. Perhaps more significantly, the top-rated Nicor storage field (Troy Grove) has the highest withdrawal capacity of any of Nicor's fields; therefore, it is logical to assume that this field gets the greatest amount of management attention among the storage fields in Nicor's portfolio. Thus, the Nicor data reinforces the fact that the rankings on IP Exhibits 17.2-17.3 depict a measure of efficiency and are not driven by geology or physical characteristics of the listed reservoirs. (IP Ex. 17.6, p. 9)

Illinois Power's response to Mr. Lounsberry's generalized assertion that IP was not providing "adequate, efficient, reliable, environmentally-safe and least cost public utility services" with respect to its storage field operations was not limited to IP Exhibits 17.2 and 17.3. Illinois Power has increased efficiencies at its storage facilities by implementing advanced technologies as they have become available. For example, IP has improved the automation and remote control features of the control systems at the storage fields. All of the fields have updated control systems that have been installed over the last eleven years. These upgraded control systems make the storage facilities more efficient operationally and improve IP's ability to monitor them, both on-site and from the Decatur dispatch center. Gas dispatchers in Decatur are now able to monitor the status and operations of the storage facilities. IP has also adopted a standardized set of operations software at the operator interfaces so that, if necessary, operators from one field can go to any other field and control it. (Rev. IP Ex. 13.1, pp. 22-23)

Additionally, Illinois Power's storage fields have an excellent safety record, with only three lost-time accidents at the fields in the last ten years and no lost-time accidents in the last six years. IP's storage field operators receive extensive training on numerous safety-related topics including fire safety training. Illinois Power has never had an incident that endangered public safety at any of its gas storage facilities. (Rev. IP Ex. 13.1, p. 20) Moreover, the Commission's

Office of Pipeline Safety audits each of IP's seven storage fields annually; these audits include all the records at each field and verification that leakage surveys and pipeline patrols have been performed. As noted earlier, the OPS has issued only one "Non-Compliance" and two "Observations" to IP in total for all seven of IP's fields in the last five years; the issues associated with these findings were minor and were addressed immediately by IP. (*Id.*, p. 18)

Finally, on IP Exhibit 17.4, IP presented a ranking of the 41 aquifer storage reservoirs in terms of the ratio of the maximum operating pressure to the original reservoir pressure. Hillsboro has the lowest ratio on this list and Shanghai the fourth lowest. The easiest way for an operator to increase inventory and deliverability is to operate a reservoir at a high pressure relative to the original reservoir pressure. However, this practice can be unsafe and unwise, because it increases the possibility of gas leaks or migration outside the reservoir as well as structural damage or compromise to the integrity of the reservoir. The rankings of Hillsboro and Shanghai on this exhibit show that IP has not resorted to this practice but rather has operated its aquifer storage fields in a safe and conservative manner. (IP Ex. 17.1, pp. 21-22)

4. Overall Conclusion on Used and Useful Adjustment

The discussion in Section II.D of Illinois Power's Initial Brief and Section II.B of this Reply Brief demonstrates that the Hillsboro Storage Field is fully used and useful and that Staff witness Lounsberry's proposed used and useful disallowance must be rejected. Hillsboro meets the statutory tests of "necessary to meet customer demand" and "economically beneficial." Staff witness Lounsberry's flawed, inappropriate and unreasonably stringent used and useful methodology does not demonstrate otherwise. Further, his "overall storage concerns" furnish no support for his proposed used and useful disallowance for Hillsboro. The Commission should recognize Mr. Lounsberry's stale, previously-rejected arguments for what they are: stale,

previously-rejected arguments. The Hillsboro Storage Field should be included in rate base as fully used and useful.

III. COST OF SERVICE, REVENUE ALLOCATION AND RATE DESIGN

A. Cost of Service Study

1. Average and Excess versus Average and Peak Allocation Method

Response to Staff. In its Initial Brief, Staff provided a detailed explanation in support of its use of the Average and Peak ("A&P") method for the allocation of transmission and distribution ("T&D") plant. (Staff Init. Br., pp. 53-57) Among other arguments, Staff asserts that ". . . recent precedent indicates the Commission currently favors the A&P over the A&E" allocation method. (*Id*., p. 55) IP acknowledges that the Commission has tended to adopt the A&P method in recent rate cases, but notes that in this case the Commission has available to it a full record on the merits and drawbacks of each approach, which the Commission should use to decide this issue.

Response to IIEC. A significant portion of IIEC's Initial Brief addresses the appropriate cost allocation method, that is, the A&E method versus the A&P method. (IIEC Init. Br., pp. 4-13) While it is true that AmerenIP is of the view that the A&E method is theoretically superior to the A&P method, and does not discount many of the arguments put forward by IIEC in that regard, there are some statements or positions set forth by IIEC with which AmerenIP does not agree. In addition, not completely satisfied with the A&E method it endorses, IIEC, in an effort to reallocate the cost of mains to other customers, asserts that the A&E method over-allocates these costs to larger customers. This issue is also addressed in Section III.A.2 below.

IIEC presses the point that if the design day demand is not reflected in the allocation process, the resulting allocation will not show the appropriate cost responsibility for the T & D

system. IIEC relies in part in the cross-examination of AmerenIP witness Karen Althoff. (IIEC Init. Br., p. 8) That limited exchange, however, reflected only a generalization on the manner in which the system is designed. Further, the questions and answers are presented out of context in IIEC's brief. It is not correct that at a minimum the system is designed to allow the customer to receive the gas it needs on a most severe weather day, as suggested by IIEC. Ms. Althoff made it clear during cross examination that there is a fundamental difference in designing storage or underground facilities when compared to T&D systems. Severe weather is the primary factor in designing the amount of storage. Severe weather is not the primary factor in designing and planning for distribution, or T&D plant. (Tr. 159). Indeed, later in her cross when asked specifically if it was correct that the T&D system is designed to accommodate at a minimum the usage of each class during the most severe weather, Ms. Althoff said, ". . . no based on the different planning criteria for T&D versus the criteria for severe weather." (Tr. 160).

IIEC attempted to demonstrate during cross examination that the T&D systems are built to serve the maximum peak demand whether it occurs in the summer or on the most severe weather day. However, this claim is too general, because it fails to acknowledge or take into account that in designing a system, the class of customers and temperature are also considered. If a class of customers acts unexpectedly out of the norm (e.g., if grain dryers use large amounts of gas in January), the T&D pipe will not accommodate that demand. Further, if a transport customer buys more than IP can deliver on a critical day, then IP could be forced to curtail this load so that firm customers receive adequate gas supply. The fact is that IP does not rely exclusively on maximum peak demand as the sole causative factor in designing and building T&D plant. Therefore, to the extent IIEC's calculation turns on this faulty premise, it must be rejected.

None of the above points should have been a surprise to IIEC, as in her testimony Ms. Althoff testified that while AmerenIP designs its storage for severe weather, not all T&D systems are designed to meet the customers' demands during severe weather. (IP Ex. 5.10, p. 4) Therefore, two things must follow: the record does not support IIEC's often misstated view of how AmerenIP designs its T & D system, and to the extent the IIEC relies on wrong information, its modification of the A & E method is faulty.

IIEC also argued that design day demands, rather than system coincident peak and class non-coincident peak demands, should be used in developing the allocator for T&D mains. (IIEC Init. Br., p. 3) However, IIEC's analysis is incomplete, as the T&D allocator, while based on normalized weather, adjusted usage for design day degree days. The normalized weather was then adjusted for the most severe day degree days to determine the appropriate storage allocator.

2. Allocation of Cost of Mains

Response to Staff. In the context of agreeing to the A&P method, Staff agreed with AmerenIP's modifications to this method for the allocation of mains, and that agreement is not revoked in Staff's Initial Brief. (See Staff Ex. 16.0, p. 2)

Response to IIEC. As indicated in Section III.A.1 above, IIEC makes an adjustment to the A&E method to reallocate the cost of mains away from the large customers. In support for its position IIEC asserts that the A&E method ignores the "economies of scale" associated with serving larger customers, and cites certain data to support its argument. (IIEC Init. Br., pp. 6-7) In particular, IIEC asserts that the larger main that is typically used to serve larger customers is less costly on a cost per mcf of capacity basis, as well as considering the cost of installation on a per foot basis. As explained below, IIEC employs a "direct assignment" method in support of its

position. The Commission should disregard this hybrid allocation, which is an aberration of the A&E method.

In its Initial Brief, IIEC carefully avoids addressing the underlying defect in its analysis, which was highlighted by AmerenIP in its rebuttal case, namely, that the bulk of IIEC's analysis is based on the review of data associated with ten large customers. Although IIEC witness Dr. Rosenberg was keen to highlight the data set associated with the ten largest customers throughout his testimony, in its Brief IIEC avoids entirely any mention of the number "ten". Instead, the IIEC Brief generically refers to "larger customers" throughout. It is understandable why IIEC has shifted its position and tried to camouflage the nature of its evidence in this case. IIEC knows all too well that the underpinnings to its analyses have been exposed.

In AmerenIP's Initial Brief, we explained that the $9.45 per foot cost for 12-inch steel pipe proxy relied on by Dr. Rosenberg was faulty because, in part, he relied on a data request response which on its face stated the information therein would not support the entire cost associated with mains. (IP Init. Br., p 66) It was also noted that Dr. Rosenberg completely ignored the undisputable fact that mains are common to all customers, so that for him to only incorporate a subset of costs associated with these ten largest customers in developing his arguments was an unsustainable position. So, when IIEC argues the A&E method ". . . ignores completely the economies of scale associated with serving the large customers" (IIEC Init. Br., pp. 6-7), the Commission needs to be aware that the "economies of scale" argument offered by IIEC is premised on data regarding these ten customers.

Further, Dr. Rosenberg's $9.45 per linear foot measurement is not even an adequate proxy with regard to the specific costs incurred to serve these ten customers. He agreed in cross-examination that the $9.45 unit cost per foot of the 12-inch main was with respect to the entirety

of 12-inch main in the AmerenIP system. (Tr. 183) He further agreed that this cost was not attributable to the specific facilities installed with regard to these ten customers. (Tr. 184) Moreover, Dr. Rosenberg later explained that what he actually did was to identify the average pipe sizes used to serve nine of the ten customers, calculate a system wide average cost per linear foot for each of the pipe sizes, and then apply the system-wide average linear cost per foot to the actual length serving these customers. (Tr. 186) This means, in effect, that Dr. Rosenberg used a system-wide average cost which by definition is a cost that can be attributable to some degree to each customer, but he then used a specific length associated with these customers in developing the $9.45 per foot unit cost associated with the subject main.

Finally, to counter further Dr. Rosenberg's position, it is undisputed that steel pipe is capable of carrying higher pressures. Steel pipe is generally needed for larger load customers because capacity is a factor and is needed to handle the larger throughput. Main deliverability is based on pressure rating and carrying capacity. This again illustrates that larger volume customers require more expensive pipe.

Response to BEAR. BEAR contends that IP's cost of service study does not allocate demand charges appropriately with respect to the SC 66 class. While it is difficult to fully understand the arguments being made by this intervenor, one thing is clear: BEAR cites virtually no evidence to support its claim, meaning most of the citations to the record are to the testimony submitted by Company witnesses except in a limited instance of a BEAR cross-examination exhibit which does not support the charges being made by BEAR.

First, BEAR argues there is a difference of opinion between the Company, Staff, and *CUB* regarding the way in which average loads and peak loads should be utilized in the

allocation of distribution capacity costs. (BEAR Init. Br., p. 4) CUB's testimony is completely silent as to this particular matter, as is its Initial Brief.

BEAR then states that to date all of the allocations by IP are flawed because of the way IP defined "average" use, which BEAR then states results in over-allocating capacity costs to grain dryers. (BEAR Init. Br., p. 4) First, it is unclear what BEAR means by "all of the allocations". Second, BEAR does not explain how IP defined "average" use let alone attempt to explain how the definition is flawed. Next, BEAR asserts that the Company has acknowledged that grain dryers will not impose any costs on the systems during system peak periods. (BEAR Init. Br., p. 4) IP does not dispute this fact (unless a grain dryer in fact uses gas at such time); this is one reason why IP is proposing an optional rate for these customers that provides them the benefit of their seasonal use. In any event, the fact that these customers may impose little if any costs during the peak period speaks nothing as to how IP has defined "average" use in the A&P method or whether these customers should bear some responsibility for T & D costs.

Later at page 4, BEAR asserts again that IP's cost of service study intends to recover peak costs by increasing the "average" use component of the A&P method. BEAR gets to the heart of the matter by taking issue with IP's calculation of average use, as explained on page 5 of its Brief. (See also IP Ex. 7.30, pp. 10-11) BEAR's argument, in summary, is that customers taking service under SC 66 contribute absolutely nothing to the peak and, therefore, costs are allocated to this customer group in an amount greater than they should otherwise be.

Though BEAR regurgitates certain of IP's arguments in defense of its allocation of demand costs to SC 66, BEAR fails to comprehend the underlying rationale. These customers do not use the system day in and day out by an equal amount. The vast majority of their usage, about 90%, is likely to be for a specific number days in the year, 61 days for grain drying

customers and 184 days for asphalt customers. Expanding the "average" to the entirety of the year, 365 days, as BEAR suggests, means in effect that they would be using less storage, transmission and distribution, which is not the case, and which is not supported by any events in the record, and upon reflection by even a lay person would be recognized as an unsupportable proposition.

During the fall the seasonal use customers rely heavily on the transmission, distribution and storage systems of the Company. Bear in mind the arguments by and between IIEC witness Dr. Rosenberg and Staff witness Lazare as to whether the A & E or A & P method should be used. Both would say that the "average" component in each method allocates some amount of demand costs to the customer, and indeed it is Dr. Rosenberg's belief that the A & P method double counts these costs. (IIEC Ex 2.1, pp. 2-8) Similarly, Staff's Initial Brief states, "The average demand component reflects the role of year-round demands in shaping the transmission and distribution investments." (Staff Init. Br, p. 55) To do as BEAR suggests has the effect of allocating a substantially reduced amount of these costs to SC 66 customers, to the detriment of all other customers.

Further, the "average" portion of the A&E and A&P methods assumes that customers consume gas at a 100% load factor. (IIEC Ex. 2.1, p. 3) The seasonal use customers do not use gas consistently for 365 days a year. To average SC 66 customers' usage over the entire year would violate the spirit of the "average" allocator, whether the A&P or the A&E method is used.

Finally, BEAR asserts at page 7 of its Initial Brief, in reliance on BEAR Exhibit 1, that AmerenIP's cost of service study results in a double recovery of certain investment. This is not true. When contributions are made, rate base is reduced. (See, e.g., Schedule 4, the rate base schedule, to each of Appendix A and Appendix B to the Stipulation, which shows rate base

reduced by customer advances for construction.) The capacity-related costs allocated to a class are for the recovery of the investment that is required to lead up to the customer's line extension (i.e. infrastructure net of the customer's contribution).

Further, distribution planners must ensure that delivery systems can adequately serve customers' demands throughout the year, and they do this by checking that distribution systems are large enough to serve the combined space heat and non-space heat loads of customers throughout the year. (IP Ex 7.19, p 19-20) AmerenIP will still be planning for the delivery system as if grain dryers, and other non-space heat customers, will be using gas on days coincident with space heat customers' use at 20 degrees. (IP Ex 7.30, p 10) The uniqueness of a temperature threshold in SC 66 has given rise to a unique allocation of mains cost. Including in the average allocator days in which SC 66 customers use no gas would fail to recognize that these customers indeed compel the Company to run separate reliability planning models for grain dryers in order to ensure system reliability. (*Id.*) The Company's average allocator provides a better link between the planning criteria used in evaluating system reliability and cost of service.

In the end, the Commission should not approve BEAR's misguided application of the cost of service; it is supported by no other party in this proceeding, either in actual application or in concept. Further, as explained in IP's testimony and in both our Initial Brief and this Reply Brief, BEAR's results-oriented analysis fails to acknowledge the beneficial treatment these customers are getting as a result of SC 66. BEAR's unmeritorious complaints regarding the SC 66 Facilities Charges, addressed below (Sections III.A.3 and IV.A), and the allocation issue addressed above, cannot detract from sound rate design and proper revenue requirement responsibility, from which the SC 67 customers that will be eligible for new optional SC 66 benefit on an overall basis.

3. Allocation of Cost of Services

Response to Staff. Staff initially challenges AmerenIP's proposed services allocator, mostly taking issue with the Company's original proposal. (See Staff Init. Br., pp. 57-59) Here, Staff complained that little explanation for the allocator was offered in IP's direct case, and that IP relied upon two assumptions in driving the allocation of service costs: (1) that residential customers had a much higher ratio of steel to plastic services than non-residential customers, and (2) that IP assumed that steel services are more costly than plastic services. Finally, Staff asserts that IP's allocation of services was inconsistent with information IP had provided to the United States Department of Transportation ("USDOT").

Ignored by Staff, however, is the revised services allocator presented by the Company in its rebuttal case; arguing against a withdrawn proposal makes little sense. Also ignored by Staff is the fact that the breakdown between steel and plastic pipe resulting from IP's revised allocator is very comparable to the information IP provided to USDOT. Finally, absolutely ignored by Staff is the cost data and analysis employed by IP in presenting its revised allocator. Many of Staff's arguments were addressed by IP in our Initial Brief and will not be repeated here. (IP Init. Br., pp. 68-72)

Staff also fails to acknowledge that Mr. Lazare's services allocator is built on the higher steel to plastic service ratio. Basically, Staff is using IP's direct case work papers without revising its allocator for the revisions that IP made in rebuttal. Further, Staff's services allocation assigns no services costs to SC 90 and only a minimal amount to SC 76, on which almost 200 customers take service. These facts further demonstrate that Staff witness Lazare's services allocator is faulty.

Staff purports to be troubled by its interpretation of IP's "assumption" that steel costs far more than plastic, conflicts with the relative cost of steel and plastic pipe at the distribution level. (Staff Init. Br., p. 59) Staff's support for this interpretation and the resulting claim that the average price is $7.32 per foot for all plastic pipe two inches or less and $3.67 for similarly sized steel pipe is IP's response to IIEC Data Request 1-33. On its face, the response states unequivocally that the information contained therein, though responsive to the data request, does not contain all the cost data by which to determine an appropriate allocation for services. Therefore, the conclusion Staff reaches is not one grounded in fact but instead one without any supporting data. Further, Staff continues to ignore that the installation of steel pipe is a far more labor intensive process than the installation of plastic pipe. (Staff Init. Br., pp. 59, 61)

Staff also chooses to ignore the Company's response to Mr. Lazare's data request PL 2.02, which was discussed by IP witness Ms. Althoff in her surrebuttal testimony. (IP Ex. 5.10, p. 8) That data request response provided the breakdown between material and labor cost associated with both steel and plastic pipe, based on the various pipe diameters used. This information shows that labor cost is the significant driver in determining the total cost, and that steel is more costly than plastic. Another data request response provided to Mr. Lazare, PL 4.09, explained that steel is more costly than plastic because steel pipe needs to be cathodically protected. This response also explained why the labor costs associated with installing steel are greater. (IP Ex. 5.10, pp. 9-10) Does Staff challenge this information? No. Does Staff present any evidence to the Commission that the labor costs associated with installing steel are different than what is being represented by the Company? No. Does Staff offer an opinion as to whether the treatment of steel pipe warrants a greater cost compared to plastic, all things being equal?

No. Instead, Staff is intent on coloring the Company's case by stating that its data is unreliable or otherwise inappropriate, while glossing over the hard, cold facts it cannot disprove.

IP's revised services allocator, and its cost support and rationale, were provided in the Company's rebuttal case. (IP Ex. 5.6, pp. 14-17) Thus, Staff and other parties had full and ample opportunity to critique the revised services allocator in *their* rebuttal filings, but failed to do so. Here is the essence of Staff witness Lazare's rebuttal case:

> I have questions about the basis on which those numbers were derived. So I don't feel comfortable supporting an allocator that makes these kinds of distinctions between the cost of plastic and steel. (Tr. 109)

Mr. Lazare may have "questions" about the underlying numbers that support the revised services allocator, but he has no facts and made no effort to raise these questions in his rebuttal testimony, nor did he attempt to refute the basis for the numbers that support IP's revised services allocator.

Response to CUB. CUB supports the Staff's position on this matter, suggesting that the Commission should base its decision on the soundness of the numbers. (CUB Init. Br., p. 7) AmerenIP agrees with CUB that the Commission's decision should be based on the soundness of the numbers. The record in this proceeding overwhelmingly demonstrates the soundness and justification of the "numbers" that IP relied upon in determining its revised services allocator. CUB's only rationale for supporting the Staff is Mr. Lazare's brief commentary in rebuttal, quoted above, that he is "not comfortable" with the Company's revised services allocator.

4. Use of AmerenIP Cost of Service Study versus Staff Cost of Service Study

Staff contends that the Staff cost of service study should be used as the foundation for ratemaking in this case, for two reasons: First, according to Staff, the Staff study incorporates a more reasonable cost allocation methodology than the IP study; second, the Staff study is more open and accessible than IP's study. (Staff Init. Br., p. 63) As to the first reason, IP has agreed

to use a modified A&P allocation method, with which Staff witness Mr. Lazare has agreed. Thus, IP and Staff are in agreement as to how T&D facilities should be allocated in this case. (See Sections III.A.1 and 2, above) The only significant substantive disagreement between IP and Staff over cost of service study methodology in this case is with respect to the allocation of services. (See Section III.A.3 above) Therefore, as to substantive issues, the Commission's resolution of which methodology for allocating services costs should be used will effectively determine which overall cost of service methodology should be used for purposes of this case.

As to Staff's second reason, Mr. Lazare voiced some complaints in this case about his ability to access IP's vendor-supplied cost of service model, and made some recommendations about what IP should be required to do in future cases with respect to the provision of a cost of service study. This issue is discussed in Section III.A.6 below. However, for purposes of this case, Mr. Lazare's "accessibility" concerns should not be a factor in determining which cost of service model is used in setting rates. Although it apparently took longer than he would have liked, Mr. Lazare did get access to an "unprotected" version of IP's cost of service model in this case well in advance of filing his direct testimony. Any other party that wanted access to the model IP used was able to do so too. (See IP Ex. 5.6, p. 19, and IP Init. Br., pp. 79-80)

In any event, the issues of what cost of service study to use and which cost of service model to use should be kept separate. IP's cost of service model is fully capable of quickly and efficiently producing a final cost of service study, based on the final approved revenue requirement, that implements the Commission's decisions on the substantive cost of service issues. Staff's model, in contrast, is not capable of producing cost information in sufficient detail to develop detailed pricing. Specifically, Staff's model is incapable of calculating the revenue requirement by function (i.e., storage, transmission, distribution, services, meters) and by rate

class (i.e., SC 51, SC 63, SC 64, etc.) IP's cost of service model is capable of producing this level of detail which is used in the development of the specific proposed rates for each service classification. (IP Ex, 7,19, p. 29)

Thus, for purposes of this case, the Commission should determine which cost of service study should be used solely based on its resolution of the substantive issues of cost of service methodology that remain in this case. Illinois Power's cost of service model, however, should be used to produce the final cost of service study to be used in the final interclass revenue allocation and establishment of specific prices, based on the Commission's substantive determinations.

5. Allocation of Overall Revenue Requirement to the Customer Classes

The allocation of the final approved overall revenue required to the customer classes should be made using the cost of service study (incorporating the Commission's substantive determinations regarding the remaining cost of service issues including allocation of T&D plant, allocation of the cost of services and allocation of meter costs) so as to achieve equal rates of return by class. The only exception to this principle should be with respect to the SC 90 class, which per the SC 90 customer's contract is not subject to an increase in its contract prices during the term of the contract based on a general rate case proceeding. Therefore, to the extent the allocation of the overall revenue requirement to achieve equal class rates of return would produce a rate increase to SC 90, that incremental increased revenue must be reallocated to the other customer classes. (See IP Init. Br., p. 74)

Staff expresses agreement in principle with the proposition that the interclass revenue allocation should be based on the final cost of service study incorporating the Commission's conclusions as to the disputed cost of service study issues in this case. (Staff Init. Br., p. 67) Unfortunately, in practice, Staff is not proposing to actually implement this principle. As

requested by the ALJ, Staff provided attachments to its Initial Brief that present Staff's proposed allocation of an overall revenue requirement of $138,566,000 to the customer classes and the associated specific rates and charges for each service classification.[53] However, to allocate the $138,566,000 revenue requirement to the customer classes, Staff has simply taken the specific rates and charges it developed to recover the revenue requirement that IP proposed in rebuttal testimony (which rates and charges reflected Staff's allocation of IP's rebuttal revenue requirement to the customer classes), and reduced these individual rates and charges by the percentage difference between IP's rebuttal revenue requirement and the $138,566,000 "Appendix A" revenue requirement.[54] (Staff Init. Br., p. 70)

Staff's approach is inappropriate, does not produce cost-based rates in accordance with the Commission's final determinations, and should be rejected. To give just one example of the flawed outcome of Staff's approach, IP's rebuttal presentation included full recovery of all Hillsboro-related costs but no allocation of storage-related costs to SC 76 customers (a topic discussed in Section IV.B of IP's Initial Brief and this Brief relating to the transportation issues), while the $138,566,000 "Appendix A" revenue requirement excludes the revenue requirement associated with the Hillsboro base gas adjustment and the equity return on the non-used and useful (per Staff) portion of the Hillsboro investment. The "Appendix A" revenue requirement

[53]The $138,566,000 overall revenue requirement is the revenue requirement presented on Appendix A to the Stipulation and does not reflect the additional revenue requirement should IP prevail in whole or in part on the Hillsboro issues, i.e., it is Staff's proposed revenue requirement.

[54]As Staff explains at page 70 its Initial Brief, there were two small exceptions to this process: (i) Staff incorporated IP's proposed Electronic Metering Charge of $18.50 per month, and (ii) Staff slightly reduced the SC 63 customer charge to eliminate a "rounding error" of $18,987. IP notes with respect to the first exception that per the Tariff Stipulation between IP and Staff, the monthly charge for the Electronic Metering Index is to be $16.50 and the monthly charge for the communications equipment required for remote access to the customer's meter is to be $21.25. (See IP Init. Br., p. 98)

also reflects the reduction in revenue requirement resulting from applying the stipulated rate of return (8.18%) rather than IP's proposed rebuttal rate of return (9.39%) to the entire storage field investment included in rate base. In short, Staff's approach reduces the rates in SC 76 due to reductions in a cost of service component that was not allocated to these customers in the first place! Similarly, Staff's approach reduces Facilities Charges – which, as generally accepted, are to be based on the costs of services, meters, regulators and other customer premises equipment plus costs for customer billing and accounting – based on reductions in IP's proposed overall revenue requirement, such as storage-related costs, that have nothing to do with customer premises facilities. (IP Ex. 7.30, pp. 13-14)

More generally, Staff effectively discards all the time and effort that the parties have devoted in this case (as in most gas and electric rate cases) to resolving cost of service study (and rate design) issues. What was the point of all the witness, attorney and ALJ time that has been devoted to the specific cost allocation and rate design issues in this case if the final interclass revenue allocation (and the specific rates and charges) are to be based, as Staff proposes, on a proration from rates that were designed to recover a much higher revenue requirement? Apparently Staff does not believe that accurate class revenue allocation and rate design is worth the effort. (See Staff Init. Br., p. 69) Further, while Staff witness Lazare purported to be overwhelmed by IP witness Jones' *two page* discussion of how to develop the final rates and charges to recover the final approved revenue requirement (see Staff Init. Br., p. 68), Illinois Power assures the Commission that the task is not that hard. As Mr. Jones testified, many of the steps he outlined to adjust prices to recover the final revenue requirement have been automated and can be implemented well within the compliance filing time normally ordered by the Commission. (IP Ex. 7.30, p. 13) Apparently Mr. Lazare does not want to have to look at

another cost study (see Staff Init. Br., pp. 68-69), but as Mr. Jones pointed out, "I do not believe it is a waste of time to provide customers with accurate, cost-based prices that correspond to the final revenue requirement that the Commission approves." (IP Ex. 7.30, p. 13)

Finally, whatever validity Mr. Lazare's "transparency" concerns (Staff Init. Br., p. 69) might have in the abstract, they are inapplicable in the context of this case, since (at the ALJ's direction) IP has provided two complete revenue allocations and sets of specific rates and charges with its Initial Brief to recover both the minimum ($138,566,000) and maximum ($141,457,000) potential revenue requirements in this case, and the parties are free to comment on these revenue allocations and specific rates and charges in their reply briefs.

The Commission should order that the final interclass revenue allocation and specific rates and charges should be developed to recover the final approved revenue requirement based on the Commission's final determinations with respect to the contested cost of service allocation and rate design issues in this case, using the steps outlined by the Company, rather than through Mr. Lazare's blunderbuss "proration" approach. IP Appendices A and B to IP's Initial Brief as well as IP's cost of service study provide the bases to complete this task in a timely manner.

IIEC raises a separate revenue allocation issue, namely, that SC 65 and SC 76 should be treated separately, not together, for revenue allocation purposes. (IEC Init. Br., pp. 13-14) Although IIEC attempts to identify distinctions between the customers served on these two service classifications (*Id.*, p. 14), from IP's perspective they are not distinguishable. Theoretically, all industrial customers could be served on either SC 65 or SC 76, and customers are allowed to periodically switch between the two tariffs. (IP Ex. 7.19, p. 6) The only practical distinction between the customers served on these tariffs is that the SC 65 customers have the ability to purchase system supply gas from IP if necessary. However, SC 65 customers are also

entitled to transport their own customer-supplied gas (like SC 76 customers) by electing transportation service on Rider OT, which many SC 65 customers have done.

However, to ameliorate IIEC's concerns on this topic, IP points out that its proposed rates and charges for SC 65 and SC 76 to recover the portion of the overall revenue requirement allocated to this class, as shown on IP Appendices A and B to IP's Initial Brief, reflect several cost-based distinctions between SC 65 and SC 76, including: (i) separate Facilities Charges have been designed for SC 76 customers and for comparably-sized (load-wise) SC 65 customers[55]; (ii) no storage costs have been allocated to SC 76 (IP Ex. 7.10, p. 21); (iii) the Delivery Charge has been eliminated for SC 76 because delivering gas to SC 76 customers does not cause IP to incur a volumetric delivery cost (IP Ex. 7.10, p. 21); and (iv) the SC 76 Demand Charges are lower than the SC 65 Demand Charges.

Finally, BEAR continues to complain about the allocation of the revenue requirement to new optional SC 66. (BEAR Init. Br. pp. 2-3) A principal focus of BEAR's complaint is actually the proposed Facilities Charges for SC 66, which as discussed in Section IV.A below pertaining to SC 66, are cost-based and reasonable. BEAR asserts, incorrectly, that IP has "treated SC 66 differently" by "mix[ing] and match[ing] embedded and current costs in calculating its facilities costs". (*Id*., p. 2) The merits of IP's allocation of embedded facilities costs on the basis of the current costs of such facilities that would be installed to serve the various customer classes is discussed in Section IV.A below. However, SC 66 has not been "treated differently", because IP used this methodology to allocate facilities costs to all the customer classes. (See IP Ex. 5.1, pp. 7-8)

[55]Staff witness Mr. Lazare reviewed the bases for IP's proposed SC 76 Facilities Charges and found them to be reasonable. (Staff Ex. 16.0, pp. 9-10)

More importantly, BEAR continues to focus solely on the increase in delivery charges to grain drying customers on SC 66 as compared to current SC 67, and ignores the reduction in PGA charges these customers will experience as a result of IP's proposal. IP Appendix B, Schedule 2, page 2, provided with IP's Initial Brief, shows that under IP's proposed allocation of the maximum total potential increase in this case ($14,227,000), the increase in total revenue to SC 66 is 6.94%, hardly violative of "rate continuity" (see BEAR Init. Br., p. 3), particularly in light of the fact that IP's last rate case order was issued some eleven years ago. BEAR contends that IP's comparison is inappropriate because some SC 66 customers may elect to purchase and transport their own gas using IP's Rider OT. (BEAR Init. Br., p. 3) BEAR is incorrect. Customers taking service on SC 63, SC 64 or current SC 67 plus transportation service under Rider OT are billed, per the terms of Rider OT, a Demand Gas Charge that is essentially equal to the difference between the Rider A PGA charge and the Rider B Commodity Gas Charge. This charge will be eliminated in proposed SC 66 and revised Rider OT under IP's proposal. (See Section 4(h) of Rider OT as shown in legislative format in IP Exhibit 8.4.) Through this charge, these Rider OT customers pay for pipeline demand costs. It is the elimination of this charge in proposed SC 66 that reduces the overall increase to SC 66 customers to 6.94%. Thus, the reduced gas charges under IP's SC 66 proposal are applicable to both former SC 67/new SC 66 customers that purchase system supply gas from IP *and* former SC 67/new SC 66 customers that purchase their gas from third parties.

Based on its contentions that the allocation of the revenue requirement to SC 66 is excessive (which as shown above is a baseless contention), BEAR argues that the rate increase applied to grain dryers should be no more than 50 percent larger than the system increase. BEAR claims that under IP's proposed rate design, the "rate increase will fall very unequally on

grain dryers." However, as shown on IP Appendix B, Schedule 2, page 2, in the $14,227,000 revenue increase scenario, IP's proposed class revenue allocation produces a 6.94% increase for SC 66 versus 6.23% for SC 63, 6.15% for SC 64 and 4.97% for SC 65/SC 76 – so SC 66 is hardly getting unequal treatment among the non-residential customers. In fact, the proposed increase to SC 66 is less than 150% of the combined increase to the remainder of the non-residential class (SC 63, SC 64 and SC 65/SC 76), which is appropriate in light of the fact that SC 66 is an optional rate and customers electing service on it would otherwise (depending on the size of the customer) take service on SC 63, SC 64, SC 65 or SC 76. (IP Ex. 7.30, pp. 11-12) Additional reasons why BEAR's 50% "cap" proposal should be rejected were presented at page 78 of IP's Initial Brief.

AmerenIP emphasizes again that SC 66 will be an optional rate. No grain dryer will be required to take service on this rate. Grain drying customers can instead elect to take service on (depending on the customer's load size) SC 63, SC 64 or SC 65 (in each case in combination with Rider OT if desired) or SC 76. Proposed SC 66 offers significant benefits for seasonal use customers by eliminating demand charges and the Rider B Demand Gas Charge if the customer avoids using gas on days on which the temperature is projected to be 25% F or lower.[56] IP's analysis showed that virtually all current SC 67 customers should benefit by taking service on SC 66 rather than on the firm tariff otherwise applicable to the customer. (IP Ex. 7.19, p. 26) However, those grain dryers that find SC 63, SC 64, SC 65 or SC 76 to be more cost-effective than SC 66 for them can take service on the more beneficial rate.

[56]As described at pages 84-85 of IP's Initial Brief, there are additional provisions in proposed SC 66 under which at least some customers will be given a Winter Delivery Allowance that will allow them to consume some gas even on days when the temperature is projected to be below 25 degrees F.

6. Issues Associated with Vendor-Supplied Cost of Service Model Used by AmerenIP

Illinois Power addressed Mr. Lazare's complaints about IP's use of a copyright-protected cost of service model, obtained from a third-party vendor, in Section III.A.6 of IP's Initial Brief. With all due respect to Mr. Lazare, the delays he complained of in obtaining IP's cost of service model and the consequent reduced time (a mere ten weeks) he had to review IP's cost study and model were fundamentally a function of his own failure to issue his data request for the model until six weeks after the case was filed. (See IP Init. Br., p. 79) Staff responds tritely that IP is "blaming the victim for the problem." (Staff Init. Br., p. 65) However, in light of the significant effort the utility must undertake to prepare Part 285 schedules and workpapers prior to filing a case (an effort that was substantially expanded by the 2003 amendments to Part 285), so that Staff has in hand substantial information on the utility's filing at the time it is made and can get to work on evaluating it immediately, it would not seem too much to expect Staff members to issue their initial data requests more quickly than six weeks after the case is filed. In fact, other Staff members were able to do so in this case. (See IP Init. Br., p. 79) Moreover, Mr. Lazare was, or at least should have been, based on his experience in prior IP cases, fully aware that it would be necessary to sign a confidentiality agreement with the third-party vendor to obtain an unprotected version of IP's cost of service model. (*Id.*, pp. 79-80)

Staff does not contend that IP was not in compliance with the Part 285 requirements with respect to its copyright-protected cost of service model and the requirement that a confidentiality requirement be signed with the model vendor to obtain an unprotected copy. In fact, IP did exactly what was permitted by Part 285, as recently amended. (*Id.*, pp. 79-80) While Mr. Lazare's views as to what should be provided may have evolved over time, as indicated at page 66 of Staff's Initial Brief, the request that IP be ordered to do something different in the future

than what it is entitled to do under Part 285 is troubling, particularly when Part 285 was amended just two years ago and Mr. Lazare participated in that rulemaking having had very recent experience, in a previous case, with the same circumstances of which he now complains. (*Id*., p. 80) We are not talking here about a Commission rule that was promulgated or last amended 10 or 15 years ago and is out of date, but rather with a Commission rule that was amended just two years ago after a lengthy review process. We are also not taking about the precedential effect or lack thereof of an isolated prior Commission order (see Staff Init. Br., pp. 66-67).

Illinois Power has offered to engage in a collaborative process with Staff (and other interested parties) following the conclusion of this case to further explore their concerns, and possible solutions for future rate cases, concerning the Company's use of a third-party vendor's copyright-protected cost of service model. It is not IP's intention to thwart other parties' efforts in the use of a vendor-supplied model. (IP Ex. 5.10, pp. 14-15) However, the Commission's order in this case should **not** direct IP to present a non-copyright protected cost of service model in future cases, as Staff proposes. (Staff Init. Br., p. 64) Use of a vendor-supplied cost of service model is a cost-effective option for IP that avoids the need to develop and, more importantly, devote resources to maintaining its own model.[57] Further, IP's vendor, Management Applications Consulting, Inc. ("MAC"), is highly qualified and its cost models are widely used and accepted by both utilities and commissions. (IP Ex. 5.10, pp. 13-14) IP should not be prohibited from using MAC's models in the future solely on the basis of the concerns expressed by Mr. Lazare in this case – which, as indicated above, were largely of his own making.

[57]IP expects that any vendor-supplied cost of service model with any degree of quality will be copyright-protected by its vendor, to protect the vendor's proprietary interests in the model.

B. Development of Rates and Charges

Illinois Power's proposed rates and charges for each service classification for the $11,366,000 and $14,227,000 rate increase scenarios defined by the Stipulation were provided on Schedule 3 of IP Appendix A and IP Appendix B, respectively, included with IP's Initial Brief. The development of IP's specific proposed charges for the various service classifications was described in Section III.B of IP's Initial Brief. As described in Sections III.A.5 and III.B of IP's Initial Brief and Section III.A.5 of this Reply Brief, IP's proposed rates and charges for the "Appendix A" and "Appendix B" revenue requirement scenarios are based on allocation of those revenue requirements to the customer classes, using IP's cost of service study, to achieve equal class rates of return; and then designing specific rates to recover the revenue requirement allocated to each service classification using the rate design principles articulated in this case.

In contrast, as discussed in Section III.A.5 above, Staff witness Lazare has presented a set of proposed rates and charges that he developed simply by reducing each rate element he had developed to recover IP's rebuttal revenue requirement by the percentage reduction from that revenue requirement to the "Appendix A" revenue requirement defined by the Stipulation. The deficiencies in this approach that are described in Section III.A.5, above, with respect to the resulting interclass revenue allocation are equally applicable (perhaps more so) to the resulting, specific rates and charges. For example, Mr. Lazare's procedure reduces Facilities Charges, which are intended to recover customer-related costs (services, meters, regulators and metering reading, billing and customer accounting costs) based on reductions in unrelated components of IP's cost of service, such as storage field costs. For the reasons stated in Section III.A.5, above, Illinois Power's specific proposed rates and charges for the $14,227,000 and $11,366,000 rate increase scenarios should be approved by the Commission, rather than Staff's proposed charges.

The only remaining issues concerning a specific rate element appear to be the issues raised by BEAR with respect to the SC 66 Facilities Charges.[58] These issues are discussed in Section IV.A below concerning proposed SC 66.

IV. TARIFF TERMS AND CONDITIONS

A. Service Classification 66

BEAR expressed concerns with respect to (i) IP's class revenue allocation (particularly to grain drying customers now served on SC 67, who will be able to take service on new SC 66), especially with respect to allocation of demand costs; and (ii) IP's development of facilities costs and Facilities Charges, which BEAR claims will result in SC 66 customers paying higher facilities charges than if served under other applicable rates. (BEAR Init. Br., p. 2) BEAR's issue relating to allocation of demand costs is discussed in Section III.A.2 above (and in Section III.A.2 of IP's Initial Brief) concerning allocation of mains. BEAR's issue relating to allocation of meter costs and development of Facilities Charges is discussed in this section.

During the course of this proceeding, there was an issue between BEAR and IP as to what should be the temperature threshold below which SC 66 customers would be assessed demand charges and the Rider B Demand Gas Charge if they used gas. IP originally proposed that demand charges would be assessed to SC 66 customers on a day when the temperature was forecasted to be below 32 degrees Fahrenheit. As discussed at page 84 of IP's Initial Brief, in its surrebuttal testimony IP proposed lowering this temperature threshold to 25 degrees F. BEAR's Initial Brief indicates that BEAR finds this proposal acceptable. (See BEAR Init. Br., p. 2)

[58] As discussed in other sections of this Reply Brief and in IP's Initial Brief, BEAR, Staff and IIEC each has outstanding issues concerning various aspects of IP's cost of service study and the resulting allocation of the revenue requirement to the customer classes, but those concerns ultimately translate into the overall allocation of the revenue requirement to particular classes rather than an issue about a specific rate element.

BEAR's biggest remaining complaint about the design of SC 66, besides its concerns about the overall class revenue allocation, is that the SC 66 Facilities Charges are too high.[59] Specifically, BEAR wants the Facilities Charges for SC 66, which is an optional rate designed to benefit customers with a particular usage characteristic, to be set equal to the Facilities Charge that the SC 66 customer would pay if taking service on the otherwise applicable IP firm tariff (e.g., SC 63, 64 or 65).[60] (BEAR Init. Br., pp. 9-11) BEAR's position should be rejected.

Fundamentally, BEAR wants the best of both worlds: a rate with no demand charges if the customer does not use gas when the temperature is below 25 degrees, coupled with the lower Facilities Charges of IP's otherwise applicable, and more broadly used, tariffs. Given that each customer cannot be charged a Facilities Charge equal to the specific costs of the facilities installed at its premises (IP Ex. 7.19, p. 6) but rather that customers must be grouped for purposes of designing service classifications, the Facilities Charges for each of SC 63, SC 64, SC 65/SC 76 and SC 66 are based on the costs of the customer-related facilities that would be installed to serve the sizes of customers that take service on each tariff, as defined by the tariff's eligibility requirements. There are more customers served on each of SC 63, SC 64 and SC

[59]As discussed at pages 83-84 and 88 of IP's Initial Brief, IP has already modified its proposed SC 66 Facilities Charges during the course of the case to accommodate BEAR's concerns.

[60]On page 10 of its Initial Brief BEAR shows a comparison of the proposed Facilities Charges for SC 66 to the proposed Facilities Charges for SC 63, SC 64 and SC 65, including the "Small Volume Standard" Facilities Charge for SC 63 of $25. However, none of the grain dryers currently served on SC 67 would qualify for the "Small Volume Standard" SC 63 Facilities Charge; because of their requirements for higher pressure delivery, and SC 67 customers who qualified for SC 63 service would have to take Non-Standard service (i.e., delivery pressure greater than 12 inches water column) for which the proposed Facilities Charge is $90. Further, of the 79 grain dryers taking service on SC 67 in 2003, only 6 were small enough to have taken service on SC 63. (IP Ex. 7.29) In fact, the average meter-related embedded cost for all SC 67 and SC 68 customers is close to the value for SC 65. (IP Ex. 7.30, p. 8; IP Ex. 7.21) Finally, IP's proposed SC 66 Facilities Charges to recover the Stipulation revenue requirement (small, $375, medium, $725, large, $1,500) are different than the SC 66 Facilities Charges shown in BEAR's brief (see Schedule 3 to IP Appendices A and B to IP's Initial Brief).

65/SC 76 (particularly on the lower-volume use rates, SC 63 and SC 64) than are expected to elect service on SC 66.[61] The customer-related facilities installed to serve customers expected to take service on SC 66 are larger, in part because (as explained below) these customers require delivery of larger volumes of gas during a very short period of time.

Because IP is offering a tariff tailored to the unique usage characteristics of the seasonal use customers, it has also designed cost-based Facilities Charges for that tariff based on the cost characteristics of the facilities typically installed to serve customers on that tariff, which results in higher Facilities Charges for SC 66 than for SC 63 and SC 64. If a customer elects to take service on SC 66, an optional rate, and receive the benefit of paying no demand charge and no Rider B Demand Gas Charge due to the customer's seasonal use characteristics, the customer can reasonably be expected to pay a Facilities Charge that reflects the costs of the facilities installed to serve seasonal use customers.

BEAR complains that Illinois Power determined Facilities Charges using a "mixture of embedded costs and current costs." (BEAR Init. Br., p. 8) BEAR is incorrect. IP only allocated actual embedded costs to the customer classes. However, this allocation was made using the current replacement costs of facilities that would be installed to serve customers in the various classes as one of the bases for the allocator. (IP Ex. 5.1, pp. 7-8) There is nothing amiss about this allocation method; to the contrary, it is frequently used. BEAR witness Smith testified that "It is customary to use current costs for meters, etc., to develop weighted allocators, because it is usually assumed that current cost can serve as a reasonable proxy for historic costs." (BEAR Ex. 2, p. 7) Current or replacement cost has frequently been used as the basis for allocating historic

[61] As indicated on BEAR Cross Exhibit 1, a work paper for the development of IP's installed meter costs by service classification, there are approximately 34,800 customers served on SC 63, 744 customers served on SC 64, 305 customers served on SC 65 or SC 76, but only about 91 customers served on present SC 67 and SC 68 (who are expected to migrate to new SC 66).

distribution costs throughout the utility industry. Current cost provides a better basis for allocating costs to customer classes because it eliminates the impacts of varying amounts of inflation on differing items of plant. (IP Ex. 5.10, p. 11) In fact, IP used this method in its last two delivery services cases, Dockets 99-0120 & 99-0134 (Cons.) and 01-0432, for allocating meters as well as services, and the Commission approved the use of this method. (See *Illinois Power Company*, Docket 01-0432, Order (Mar. 28, 2002), pp. 59-61.) In summary, IP has used an accepted, Commission-approved method to allocate customer costs and, contrary to BEAR's assertion (BEAR Init. Br., p. 9) there is no need for IP to rerun its cost of service study to allocate customer-related costs on a different basis.

The Facilities Charges that IP has proposed for optional SC 66 are not too high, as BEAR alleges. Rather, they were developed through a detailed analysis to match meter costs to the usage and meter type characteristic of customers expected to take service on this rate. As shown immediately above, the SC 66 Facilities Charges are founded in a proper allocation of meter and services costs to the customer classes. The total embedded cost of meters that was allocated to SC 66 was then allocated into three groups within SC 66 – small, medium and large. (IP Ex. 7.30, p. 3) IP witness Jones described at length the process by which IP developed the three meter size groups within SC 66, based on three categories of maximum daily demand, or MDQ. For customers served from systems with MAOP of 60 psig or less, those three groupings are less than 3,250 therms per day, 3,250 to 7,000 therms per day, and over 7,000 therms per day; while for customers served from systems with MAOP greater than 60 psig, the three groupings are less than 6,700 therms per day, 6,700 to 19,000 therms per day, and over 19,000 therms per day. (IP Ex. 7.19, pp. 7-12) Of the 79 grain dryers currently served on SC 67, 48 would be in the "small"

category ($375 Facilities Charge), 23 would be in the "medium" category ($725 Facilities Charge), and eight would be in the "large" category ($1,500). (*Id*., p. 12)

With respect to BEAR's comparison of SC 66 meter costs and Facilities Charges to those for SC 63, SC 64 and SC 65 (BEAR Init. Br., pp. 10-11), the fact is that seasonal use customers tend to have higher meter costs compared to those that would apply for the otherwise applicable firm service rate.[62] The availability provisions for SC 63, SC 64 and SC 65 are based on the customer's average use within each of the past twelve billing periods. For customers on these tariffs, the average use per day is an accurate indicator of the customer's daily peak demand, which dictates the type of metering facilities needed to measure the customer's use. However, for many seasonal use customers, especially grain dryers, a monthly use per day average does not adequately capture the customer's required peak, but rather understates it. At the peak of the harvest, many grain dryers consume gas at a very high rate for up to two weeks and significantly less during the rest of the billing period. Thus, due to this usage pattern, metering facilities commonly used to serve the average SC 63 and SC 64 customers (who use gas more evenly throughout their peak months) are often too small to serve a grain dryer with the same average use per day. Rather, grain dryers often require larger, more expensive metering. IP's proposed Facilities Charges for SC 66 reflect these cost differences.[63] (IP Ex. 7.30, pp. 8-9)

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[62]As discussed above, IP is proposing different, and generally lower, SC 66 Facilities Charges than the values discussed at pages 10-11 of BEAR's Initial Brief.

[63]The discussion at page 11 of BEAR's Initial Brief is not an informative or useful comparison of meter costs among the service classifications. The costs discussed in BEAR's brief are only the current costs of the meter itself. BEAR does not discuss the meter installation costs, which are also shown on BEAR Cross Exhibit 1, and which can increase disproportionately to the meter cost as the size of the meter increases (for example, the meter type costing $2,767 requires 79 manhours to install while the meter type costing $4,094 requires 160 manhours to install). Nor does BEAR discuss any other customer-related costs that would be included in the development of the Facilities Charges.

BEAR's final concern is that based on IP's rate design for SC 66, some grain dryers may find it economic to switch to propane. (BEAR Init. Br., p. 12) While the possibility of grain drying customers switching to propane is a factor to be considered, the overriding objective is to design cost-based rates, which IP has done. If a customer concludes that switching to propane is more cost-effective for that customer than paying IP's cost-based rates (taking into account all factors including the customer's additional costs for ordering, handling and storing propane inventories), then the customer switch is not an inappropriate outcome.

In any event, the likelihood of grain drying customers switching to propane rather than taking service on SC 66 is minimal. IP Exhibit 7.28 presents a comparison of the cost to take gas service from IP on SC 66 to the cost of using propane for each of the 79 grain drying customers. BEAR never rebutted this customer-by-customer analysis with one of its own. IP Exhibit 7.28 showed that only seven of the 79 customers would realize a lower cost by switching to propane. For six of those seven customers, the savings for switching to propane is less than $4800 per year. Further, the analysis on IP Exhibit 7.28 (i) does not include the cost to the customer to purchase or rent a propane storage tank or tanks, and (ii) is based on IP's rebuttal revenue requirement rather than the lower, maximum possible revenue requirement resulting from the Stipulation. (IP Ex. 7.19, pp. 24-25; IP Ex. 7.28) It also does not take into account the possibilities that (i) a grain drying customer could buy gas from a third party supplier at lower cost than IP's PGA, and (ii) SC 66 being an optional rate, a grain dryer could obtain gas service from IP at lower cost under the customer's otherwise applicable firm tariff.

In summary, all of BEAR's remaining concerns about proposed SC 66 must be rejected. The Commission should approve this new optional service classification with the rates, terms and conditions proposed by AmerenIP.

B. Transportation Tariffs - Service Classification 76 and Rider OT

1. Daily Balancing and Cashout

AmerenIP's revised proposal for balancing and cashout provisions for SC 76, which were modified during the course of this case in response to suggestions and concerns from Staff and other parties, were described in Section IV.B.1 of IP's Initial Brief. Staff is in agreement with IP's revised provisions (which incorporate all of Staff's suggestions), as discussed in IP's Initial Brief; Staff did not take issue with or even mention any of these provisions in its Initial Brief. CNE-Gas, which raised some issues in direct testimony concerning IP's original proposal for daily balancing and cashout (e.g. need for a group balancing or supplier aggregation service) did not file an initial brief. IIEC's Initial Brief summarizes IIEC's objections to IP's original daily balancing and cashout proposal as presented in the direct testimony of IIEC witness Mallinckrodt. (IIEC Init. Br., pp. 20-22) As summarized on page 23 of IIEC's Initial Brief, Mr. Mallinckrodt also presented a list of conditions that would have to be met in order for daily balancing with daily cashout to be acceptable. However, as discussed in IP's Initial Brief, in IP's rebuttal testimony IP witnesses Blackburn and Anderson presented numerous modifications to IP's original proposal. IIEC witness Mallinckrodt, in subsequent testimony, and IIEC at page 23 of its Initial Brief, agreed that IP's modified proposal addressed all of Mr. Mallinckrodt's conditions. (See also IP Init. Br., pp. 93-94) Accordingly, AmerenIP believes that there are no remaining issues with respect to the balancing and cashout proposals and that the Company's modified proposal should be adopted by the Commission.

2. Group Balancing Tariff

AmerenIP's proposal to offer a group balancing service was described at pages 95-96 of our Initial Brief. Implementation of the group balancing service will commence on the first day

of the month in which AmerenIP's current billing system is converted to the billing system used by the other Ameren utilities. No other party, in their initial briefs, took issue with or raised any objections to AmerenIP's proposal to offer a group balancing service.

3. Provision of Daily Usage Information and Advanced Metering and Telecommunications Equipment

a. Applicability of Requirement for Equipment – Mandatory versus Optional

AmerenIP and Staff are in agreement on the resolution of this issue. (See IP Init. Br., pp. 96-97; Staff Init. Br., pp. 70-73) No other parties, in their initial briefs, took issue with the resolution of this issue as set forth in the Tariff Stipulation.

b. Development of Charges for Electronic Metering Equipment and for Advanced Metering and Telecommunications Equipment

AmerenIP and Staff are in agreement that there should be separate charges for the Electronic Metering Index and for the advanced communications equipment necessary to access a customer's meter (the latter charge to be applicable only to SC 76 customers and to other non-residential customers who elect optional daily access to daily usage information), and that the tariff charges for these items should be $16.50 and $21.25, respectively. (See IP Init. Br., pp. 97-98; Staff Init. Br., p. 71) No other parties, in their initial briefs, took issue with the proposal to have the separate charges for these items or with the specific proposed charges.

c. Exit Fee

AmerenIP and Staff are in agreement that an exit fee should be applicable to customers that elect optional access to daily usage information but then terminate this service within six years, in order to enable IP to recover its sunk costs for the advanced communications equipment that will be installed to provide this service to such customers. AmerenIP and Staff are also in

agreement on the formula to be used to calculate the customer's exit fee depending on the point in time at which the customer terminates this service. (See IP Init. Br., p. 98; Staff Init. Br., pp. 70-71). No other parties, in their initial briefs, objected to the proposed exit fee or to the formula for calculating the exit fee.

4. IIEC's Proposed Storage Service

IIEC witness Rosenberg's proposal for a storage service that IP would be required to offer to SC 76 customers was discussed at pages 99-101 of IP's Initial Brief, where the deficiencies and arbitrary aspects of Dr. Rosenberg's proposal (with respect to both the development of the parameters of his proposed service and the development of the charges that he proposed for it) were discussed. Most of the arguments at pages 15-19 of IIEC's Initial Brief concerning the proposed storage service were addressed at pages 99-101 of IP's Initial Brief.

Illinois Power recognizes that IIEC witness Rosenberg's proposal for a "balancing" storage service for SC 76 customers was presented largely in response to IP's original proposal for daily balancing with daily cashout for SC 76. (See IIEC Ex. 2, pp. 10-11; IIEC Init. Br., pp. 15-16) However, IP subsequently made numerous changes to its SC 76 balancing and cashout provisions which should eliminate the perceived need for a balancing storage service for SC 76 customers. For example, as noted at page 17 of IIEC's Initial Brief, "IIEC witness Mallinckrodt recommended that absent a storage service, a transportation customer should be allowed to use 120% of its nomination without penalty." That is exactly one of the modifications IP made to the SC 76 balancing and cashout provisions, i.e., as revised, an SC 76 customer will be allowed to have a daily imbalance of up to 20% plus or minus the customer's nomination without incurring a daily cashout charge. (See IP Init. Br., p. 99) IP's revised balancing and cashout provisions also allow SC 76 customers to net their daily imbalances during the billing period in

order to eliminate or minimize their end-of-month accumulated imbalances and thus avoid or minimize any monthly cashout. SC 76 customers will have access to daily usage information which will assist them in managing their nominations and usage throughout the month with the objective of being in balance on a month-end basis.[64] Finally, IP has agreed to offer a group balancing service which will enable groups of SC 76 customers to aggregate their nominations and usage for daily and monthly balancing and cashout purposes. (*Id*., pp. 92-97, 99)

With the benefit of a 20% daily balancing deadband, the ability to net daily imbalances throughout the month, and the availability of daily usage information and a group balancing service, large, sophisticated gas purchasers such as the IIEC members (or their marketers or other gas procurement managers) should be able to manage their gas nominations and usage so as to minimize or avoid both daily and monthly imbalance charges, without a storage service. (See IP Ex. 8.6, pp. 21-22)

It remains AmerenIP's position that it needs its existing storage capacity to provide reliability (i.e., peak deliverability), balancing and price diversity (seasonal gas cost savings) to its firm system supply (PGA) customers. IP's storage is fully utilized to offset fixed pipeline and leased storage costs, to diversify the pricing of gas passed through the PGA when gas is withdraw from storage, and to absorb imbalances between nominations and actual usage, for the benefit of PGA customers. To offer an optional storage service to SC 76 customers would divert storage capacity from AmerenIP's PGA customers. (IP Ex. 8.6, pp. 20-21) IIEC has not rebutted this point. In fact, one of the flaws in IIEC's proposal is that Dr. Rosenberg presented

[64]IIEC states that customers will not have access to their daily usage information until 4-6 hours after the gas day is over and that this will not allow customers to react in a timely manner. (IIEC Init. Br., p. 20) Contrary to IIEC's assertion, the availability of the customer's daily usage information within 4-6 hours after the end of each gas day will be very timely in terms of enabling the customer to schedule and manage its nominations and usage during the balance of the month in order to end the month in balance.

no realistic estimate of the extent to which SC 76 customers would subscribe to his proposed storage service, if offered, so that IP and the Commission could attempt to determine just how much of IP's finite storage resources would be diverted from serving PGA customers. Distressingly, at one point in Dr. Rosenberg's discussion he suggested that if the entire SC 76 class were to select Balancing Maximum Quantities equal to their MDQs this could represent 50% of IP's storage. (See IIEC Init. Br., p. 19) However, even a 25% diversion of IP's storage resources to SC 76 customers could be worrisome.

AmerenIP does not "feel obligated to recover storage costs from SC 76 customers" (IIEC Init. Br., p. 16). The intent of IP's proposed balancing and cashout provisions is to provide clear price incentives to SC 76 customers to manage their daily and monthly nominations and usage so as to stay in balance (i.e., within the deadband tolerances IP has proposed) and thereby avoid encroaching on storage resources that are intended to serve PGA customers. To the extent SC 76 customers fail to stay within the generous tolerances provided in IP's revised SC 76 balancing and cashout proposal, however, they are effectively utilizing IP's storage resources, and the balancing and cashout charges an SC 76 customer is assessed in such a situation are appropriately credited to system supply customers through the PGA.

Finally, AmerenIP reiterates that it already offers a storage service for transportation customers. Specifically, rather than taking service on SC 76, a transportation customer can take service on a firm supply rates (SC 63, SC 64 or SC 65), the charges for which include recovery of storage costs, but can still transport its gas requirements on Rider OT. Rider OT does have a storage bank component. (IP Ex. 8.14, p. 9) Further, retail transportation customers can obtain storage services from interstate pipelines and other third party providers. (Tr. 78)

5. Recovery of Transportation Administration Costs

As stated at pages 100-101 of IP's Initial Brief, AmerenIP agreed with Staff's proposal to eliminate the transportation administration fee from its transportation tariffs, SC 76 and Rider OT, and instead to recover transportation administration costs through an incremental addition to the Facilities Charges for SC 63, SC 64, SC 65, SC 66 and SC 76. No other parties, in their initial briefs, took issue with this proposal.

6. Critical Day Imbalance Charge

As discussed at pages 102-103 of IP's Initial Brief, AmerenIP accepted Staff's proposed changes to the implementation and administration of the Critical Day Imbalance Charge. (See also Staff Init. Br., p. 71) No other parties, in their initial briefs, took issue with the proposed Critical Day Imbalance Charge as modified by Staff's suggestions.

7. Other Changes to Rider OT

AmerenIP described other proposed changes to Rider OT at pages 103-104 of our Initial Brief. No other party has objected to any of these changes.

C. Other Changes to Bundled Gas Tariffs (Service Classifications 51, 63, 64 and 65)

As described at page 104 of IP's Initial Brief, IP is proposing to change the term "Commodity Charge" to "Delivery Charge" in SC 51, SC 63, SC 64 and SC 65. No party has objected to this change.

D. Other Changes to AmerenIP's Standard Terms and Conditions and Rules, Regulations and Conditions Applying to Gas Service

AmerenIP described other proposed changes to its Standard Terms and Conditions and to its Rules, Regulations and Conditions Applying to Gas Service at pages 104-107 of our Initial Brief. No other party has objected to any of these changes.

E. Treatment of Past-Due Payments

This issue was raised in the direct testimony of CNE-Gas witness Claussen. AmerenIP responded to this issue at pages 107-108 of our Initial Brief. CNE-Gas did not file an initial brief; therefore, AmerenIP assumes that CNE-Gas is no longer pursuing this issue.

F. Lost and Unaccounted for Factor

IIEC contends that the procedure for determining the Lost-and-Unaccounted-For factor, Factor U, which is presently determined on an annual basis, should be modified so that a three-year average is used. (IIEC Init. Br., p. 24) IIEC's concerns were driven entirely by the 2004 Factor U which IIEC witness Mallinckrodt perceived as being high in relation to the values of recent years, although his observation in this regard appeared to be solely subjective. (See IIEC Ex. 1, pp. 15-16) As shown at page 110 of IP's Initial Brief, the 2005 Factor U will be only 1.711%, which is lower than both the 2004 value and the recent three-year average. Thus, no need has been demonstrated to move to a multi-year average. Nor has a need been demonstrated to establish a "proceeding" to determine the Factor U value each year, as IIEC suggests. (IIEC Init. Br., p. 24) Commission Staff reviews IP's (and other gas utilities') historical lost gas experience as part of each year's annual PGA reconciliation proceeding. (IP Ex. 8.14, p. 9) This provides Staff with the opportunity to raise any questions that may arise from its review of the historical data as to the size of, or any aberrations in, the utility's lost-and-unaccounted-for experience. There is no need to create a separate "proceeding" to address this topic with its attendant administrative and regulatory costs. Staff concurred with Illinois Power that no changes should be made in the way that IP calculates its Factor U. (Staff Ex. 17.0R, p. 4)

G. Definition of "Therm"

IIEC recommended that AmerenIP should be required to change its pricing of cashouts for transportation customers by converting the Chicago City Gate price (which is the price used for cashouts) to a comparable price based on the Btu content of gas delivered to IP's city gate. (IIEC Init. Br., p. 26) AmerenIP agreed to make such a change (see IP Init. Br., p. 110; IP Ex. 8.6, p. 20), as IIEC acknowledges (IIEC Init. Br., p. 26; see also IIEC Ex. 1.1, p. 8)

IIEC also recommended that the Commission "should require IP to study the issue of changing the IP accounting system to bill and handle volumes on a Btu basis as is done by most [according to IIEC] gas utilities in Illinois and to submit a plan for this change." (IIEC Init. Br., p. 26) There has been no need demonstrated to impose this requirement on IP. First, despite IIEC's characterization of the practice of "most" Illinois gas utilities, the definition of "therm" in the tariffs of AmerenCIPS and AmerenCILCO, as is the case for AmerenIP, is stated on a volumetric basis, not a heat content basis. (IP Ex. 8.6, pp. 19-20) Thus, consistent with the long-run objective of making or maintaining the billing and accounting practices of AmerenIP consistent with those of the other Ameren utilities, the change suggested by IIEC could require changes not just to AmerenIP's gas billing and accounting systems but also to those of the other Ameren gas utilities in Illinois. More generally, IP believes that conversion of its billing and accounting systems to bill, handle and account for gas volumes on a Btu basis rather than a volumetric basis could be a massive undertaking. Among other things, most meters at customer premises (including of course residential and small commercial premises) measure gas only in volumes, not by heat content. (Tr. 85)

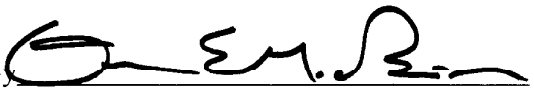
In summary, Illinois Power has agreed to address IIEC's principal, specific concern about volumetric versus heat content basis in a manner satisfactory to IIEC. IIEC's broader proposal on this topic should be rejected.

V. CONCLUSION

For the reasons set forth in Illinois Power's Initial Brief and in this Reply Brief, the Commission should accept IP's Hillsboro base gas inventory value and include it in rate base and should find the Hillsboro Storage Field to be fully used and useful, resulting in a base rate revenue increase in this case of $14,227,000. In addition, the Commission should adopt Illinois Power's cost of service study, interclass revenue allocation, rate design and specific proposed rates and charges for the individual service classifications (as set forth in IP Appendix B to Illinois Power's Initial Brief). Finally, the Commission should approve Illinois Power's other proposed tariff terms and conditions.

Respectfully submitted,

ILLINOIS POWER COMPANY

by 

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